

The

CONSTRUCTOR

OFFICIAL PUBLICATION OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



Volume XXXII

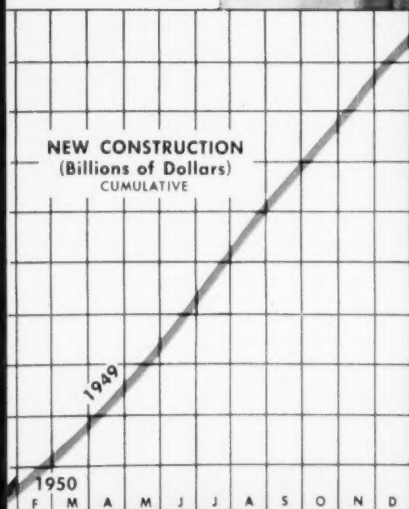
FEBRUARY 1950

Number 2

- BUILDINGS
- HIGHWAYS
- AIRPORTS
- RAILROADS
- PUBLIC WORKS



NEW CONSTRUCTION
(Billions of Dollars)
CUMULATIVE



Federal Construction Budget—page 28

Drive for Separate Contracts—page 32

Volume Possibilities for 1950—page 23

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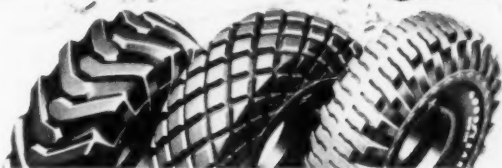


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in earth mover and
grader sizes for
maximum traction
on drive wheels.

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with world-famous
"diamond" tread
for flotation and
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dual-purpose tire
for mileage and
economy both off-
and on-the-road.

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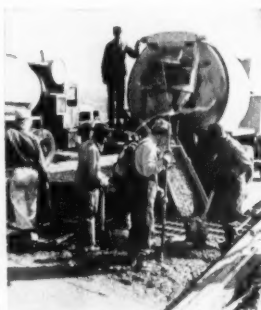
GOOD YEAR

Sure-Grip, All-Weather, Road Lug — T.M.'s The Goodyear Tire & Rubber Company

IT'S SKID-PROOF NOW!



'INCOR' CONCRETE REPLACES GRID BRIDGE-DECK ON LONG ISLAND CITY APPROACH TO NEW YORK'S QUEENS-MIDTOWN TUNNEL



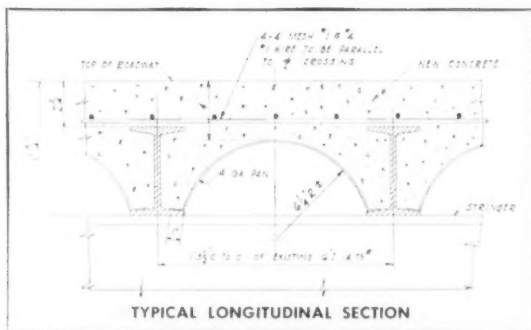
MIDTOWN Elevated Express Highway carries 11-million vehicles a year to and from Queens-Midtown Tunnel. Where this Highway crosses high above Dutch Kills, the steel-grid bridge-deck was hazardous when wet or icy—sand and salts fell through. For safety's sake, the City's DEPARTMENT OF PUBLIC WORKS decided to rebuild the deck with concrete.

EDGECLIFF CONSTRUCTION CORP., of Long Island City, rebuilt a lane at a time, to minimize motorists' inconvenience. Removing the grid sections, total 32 ft. by 1040 ft., required cutting 56,000 welds. Grids were lifted by crane, then permanent metal-pan forms were inserted between transverse I-beams, and mesh-reinforcing and concrete placed.

For durability and wear-resistance, and because much of the work was done in cold weather, 'INCOR' AIR-ENTRAINING 24-HOUR CEMENT was used throughout. Gaining service strength in a fraction of the usual time, 'Incor' minimized freezing risk in this highly exposed location, where heat protection was out of the question.

Motorists were quick to notice the sure-grip of concrete under wheel. Further proof of the axiom that traffic safety begins with the pavement!

Reg. U. S. Pat. Off.



MIDTOWN HIGHWAY CROSSING—QUEENS COUNTY, NEW YORK CITY

Bridge paving rebuilt under supervision of:
DEPARTMENT OF PUBLIC WORKS, CITY OF NEW YORK

Consulting Engineers: HARDESTY & HANOVER, New York

Ready-Mix 'Incor' Air-Entraining Concrete:
TRANSIT-MIX CONCRETE CORPORATION, New York

Contractor: EDGECLIFF CONSTRUCTION CORP., Long Island City



LONE STAR CEMENTS COVER THE ENTIRE CONSTRUCTION FIELD

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Offices: ALBANY • BETHLEHEM, PA. • BIRMINGHAM • BOSTON
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The CONSTRUCTOR

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RAILROADS • PUBLIC WORKS

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COVER

THE CONSTRUCTOR's cover for February shows the completed concrete work on the new \$11,000,000 Pennrose Avenue Bridge in Philadelphia, the largest single construction project ever awarded by the Pennsylvania Highway Department. Foley Brothers, Inc., AGC, Pleasantville, New York, poured the last bucket of concrete last month and steel work was scheduled to start shortly. Substructures and pier work cost \$6,300,000 and employed up to 300 men during the height of the construction activity, according to a spokesman for Foley Brothers. The superstructure is expected to cost \$5,000,000. More than 112,344 tons of concrete went into the substructure and piers.

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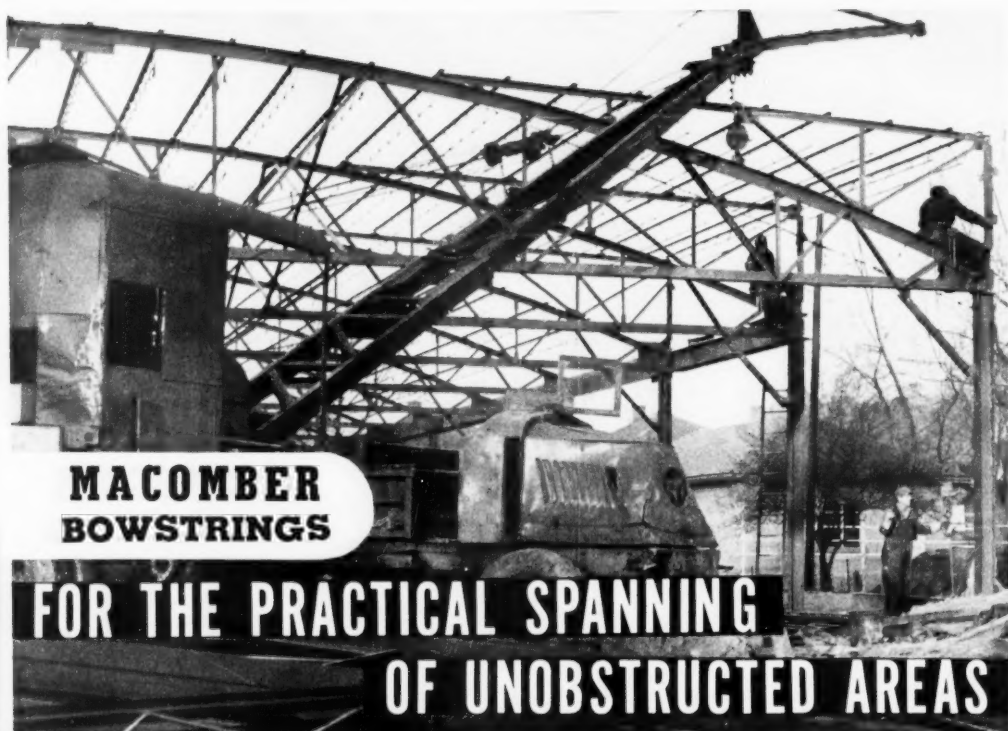
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Designers and builders have specified and used Macomber Bowstring Trusses over a 25 year period with enthusiastic approval of these completely standardized roof framing members.

These all-welded steel trusses provide the builder of anything from a 30 foot store to a 180 foot freight terminal with a practical roof framing unit.

Erected on steel columns or masonry piers, these trusses go up smoothly with a minimum of men and equipment. Strut and rod bracing combined with Macomber Roof Purlins result in a strong, rigid frame, adaptable to any type of roof.

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V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK

\$30,000,000,000 construction volume possible in 1950, says Associated General Contractors of America on basis of study of private and governmental estimates. This would be greatest one year construction volume in history, both dollarwise and physical. Outlook seems to be for \$20,000,000,000 in new construction; somewhere between nine and ten billions in maintenance and repair. Lowered construction costs would make this even higher proportionally in comparison with 1948, 1949 as far as physical volume was concerned. (Story on Page 23.)

Construction industry's vital role in national economy stressed by President Truman in Economic Report to Congress and by his Council of Economic Advisers in their report to him. Industry credited with holding economy up in first half of 1949, leading revival in second half. Continued high public works, increased highway construction indicated by Council of Economic Advisers. (Story on Page 26.)

Federal budget for fiscal 1951, beginning next July 1, carries almost four billion dollars for civil public works and national defense construction. The \$3,888,781,979 figure is 19 per cent higher than the \$3,254,226,011 which, it is estimated, will be spent on federal construction in the fiscal year ending next June 30. As was the case last year, the budget provides largely for continuing progress on projects or programs already under way—to the extent of about 95 per cent of the total expenditures. (Story on Page 28.)

U.S. highways need \$41,000,000,000 construction in 10 years to meet needs, Congressional Joint Committee on the Economic Report asserts. Committee breaks down needs this way: \$23,000,000,000 for state highways; \$10,400,000,000 for county and rural roads; \$7,700,000,000 for city and village streets. Senator Joseph C. O'Mahoney (D., Wyo.), committee chairman, pointing out importance of highways to nation's economy, estimates 600,000 persons directly employed now in highway construction. (Story on Page 41.)

President Truman, Congress in spotlight as 81st Congress begins second

session with receipt of series of President's messages. President's policies mostly the same; insistence on inflation controls dropped, but demand for increased corporation taxes is resumed. New emphasis on housing for middle income group and on school construction. (Stories on Pages 24, 25, 26.)

Basing point compromise rejected by Senate, sent back to House-Senate conferees with little apparent chance of success for system's proponents this session. Louisiana's Democratic Senator Russell B. Long led the fight against the compromise. (Story on Page 25.)

"Super" valley authorities seen as goal of President Truman after revealing press conference. Mississippi-Missouri-Ohio Valley would be joined in at least the first of such super authorities, President Truman indicated. Then he said he thought of four great area developments—northeast, northwest, southwest, and southeast. Experienced observers saw him leaning toward four "super" authorities, following out the political philosophy he first advanced in Seattle in 1948. (Story on Page 30.) Meanwhile, Interior Department and Corps of Engineers report good progress on Pick Sloan plan for development of Missouri River Basin. (Story on Page 48.)

Builders' need to obtain more information on climatology (science of climate) and to use information intelligently in planning buildings was emphasized at first Building Research Advisory Board conference in Washington last month. Specifically, need for further study of effect of climate on completed structures was underlined. (Story on Page 41.)

New, cost-reducing building method, by which roof and floor concrete slabs are poured on a foundation slab, then hoisted to position after curing, is unveiled by Institute of Inventive Research in San Antonio, Texas. So-called "Yoitz-Slick Building Method" may save up to 10 per cent, bids on one job indicate. (Story on Page 40.)

NLRB decisions in construction, trucking cases bitterly attacked by its general counsel, Robert N. Den-

ham, in speech before Building Trades Employers Association in New York City. Board has too much Wagner Act thinking, Denham maintains. General counsel insists decisions distort clear meaning of Taft-Hartley Act, flouting both his office and federal courts. (Story on Page 35.)

Denham also further expanded his December statement on representation problems in the construction industry. (Partial text on Page 36.)

Wage-Hour Law changes, some affecting construction industry, became effective January 25. (Story on Page 37.)

A.G.C. 31st annual convention program (San Francisco February 27-March 2) shapes up as official results of balloting for 1950 officers are announced by Managing Director H. F. Foreman in Washington in accordance with association procedure. (Stories on Pages 52, 53.) At same time, A.G.C. chapters and branches continue to report results of their annual elections. (Stories starting on Page 56.)

Ten millionth property improvement loan, made by private lending agency and insured by Federal Housing Administration under Title I, has been recorded at FHA. Loans represent approximately \$4,000,000,000 in repair and maintenance work. Loans started in 1934.

Heating, Piping and Air Conditioning Contractors National Association urges campaign for legislation, both state and federal, requiring separation of contracts on public work. Association's *Official Bulletin* asks all members unite in such a drive. (Story on Page 32.)

Federal-aid highway construction in fiscal year ending June 30, 1949, amounted to \$762,913,134, with the federal share amounting to \$401,968,109, Bureau of Public Roads reported as month ended. This broke all previous records, the bureau said, in line with the general pick up of highway construction of all kinds throughout the nation. Projects completed on federal-aid primary and secondary roads and in federal areas totaled 21,031 miles.

RUSCIANO & SON CORPORATION, NEW YORK

TWENTY! Think that over, you fellows who are planning ahead for the purchase of a Shovel, Crane, Dragline or Pullshovel. You are looking for machine advantages that will make money. You're in business for profit and your equipment is the Key to profit.

20 Northwests—19 repeat orders—by an outfit as well known as Rusciano & Son Corporation can mean only one thing. They have found that Northwest advantages—the "Feather-Touch" Clutch Control, the Cushion Clutch, Uniform Pressure Swing Clutches, Northwest Steering, the Northwest Dual Independent Crowd and other Northwest features do make money. Remember, too, that one out of every three Northwests sold is a repeat order in the hands of a responsible contractor.

Experience like this can be counted on. You can take the word of Northwest repeat order buyers and plan ahead for a Northwest in the heart of your job. Why not place an order now.

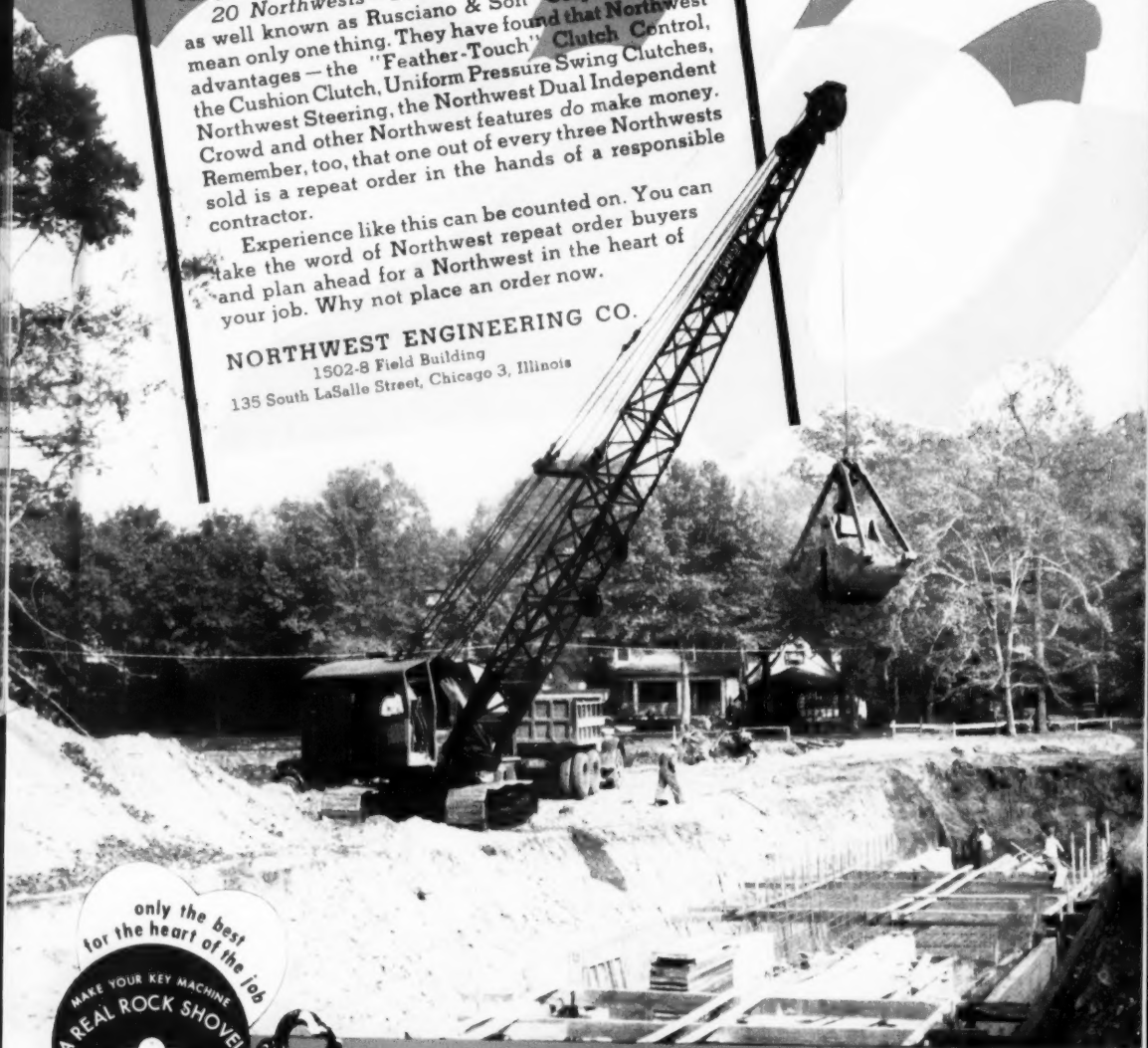
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twenty
Northwests!*



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A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for January stands at Index Number 345, according to the A.G.C. Index. The cost figure for January 1949 was 341. The 1913 average equals 100.

WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 464 for January. One year ago the average stood at 450. The average of prices paid by contractors for basic construction materials for January stands at In-

dex Number 266. The average a year ago stood at 269. The 1913 average, again, equals 100.

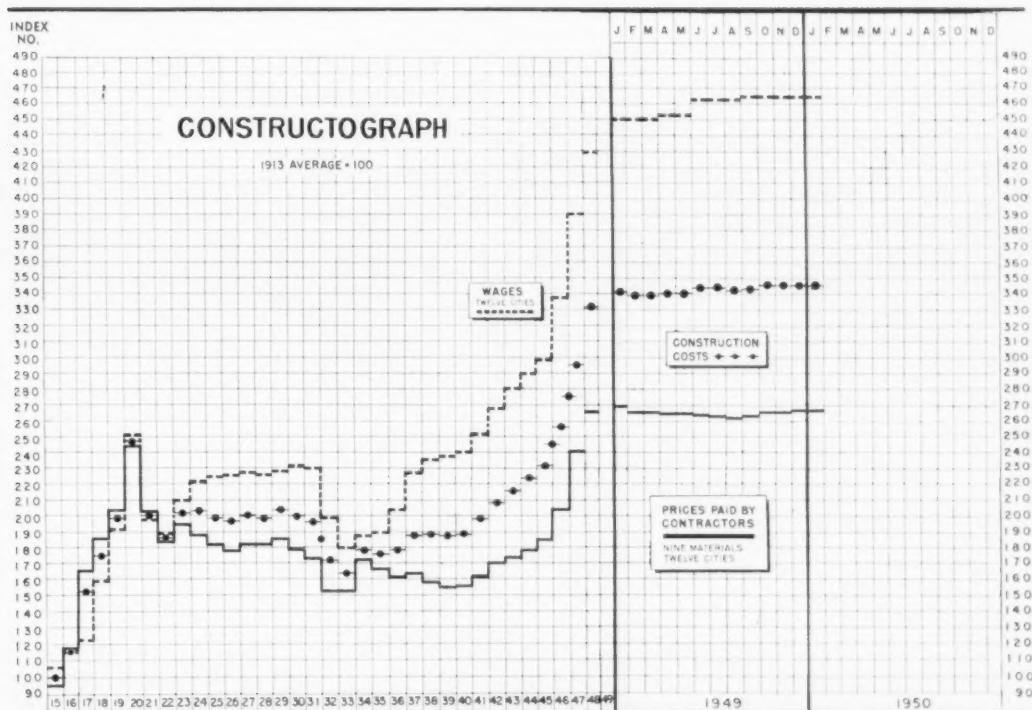
CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during December (Index Number 204, based on 1936-1938) is a decrease of 6 points from November, and an increase of 50 points above December 1948.

REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 2 weeks of 1950 totaled 1,137,965 cars. For the same period in 1949, loadings amounted to 1,455,372 cars. This represents a decrease of 22 per cent.

● Wage, Material Price and Construction Cost Trends





THE BUTLER SALES MANAGER EXPLODES:

"HOW COME!
WE GOT ONLY
10 OUT OF 12?"

"Listen you! I'll repeat it! How come we got only 10 out of 12 of the Batching Plants on that big Detroit-Wayne Major Airport job?

Butler Salesman: "Well, ah—you see—ah—

Butler Salesmanager: "Yeah! I see alright . . . Where were you when those two other plants were bought? Playing marbles, maybe?

Butler Salesman: "Oh, no sir. You,—well, I mean—

Butler Salesmanager: "Shut up! I'll do the talking. You *know* Butler Batching Plants sell themselves. All y' gotta do is just be there to know what's wanted.

Butler Salesman: "Yessir. I—ah—well,—

Butler Salesmanager: "Only 10 out of 12! —?;S*≠""!!* I oughta shoot myself!

Yes, it's true alright. Out of 12 Bulk Cement and Aggregate Batching Plants used by the three-contractor Team that built the Detroit-Wayne Major Airport, only 10 were built by BUTLER. We just don't understand it!

BUTLER BIN COMPANY

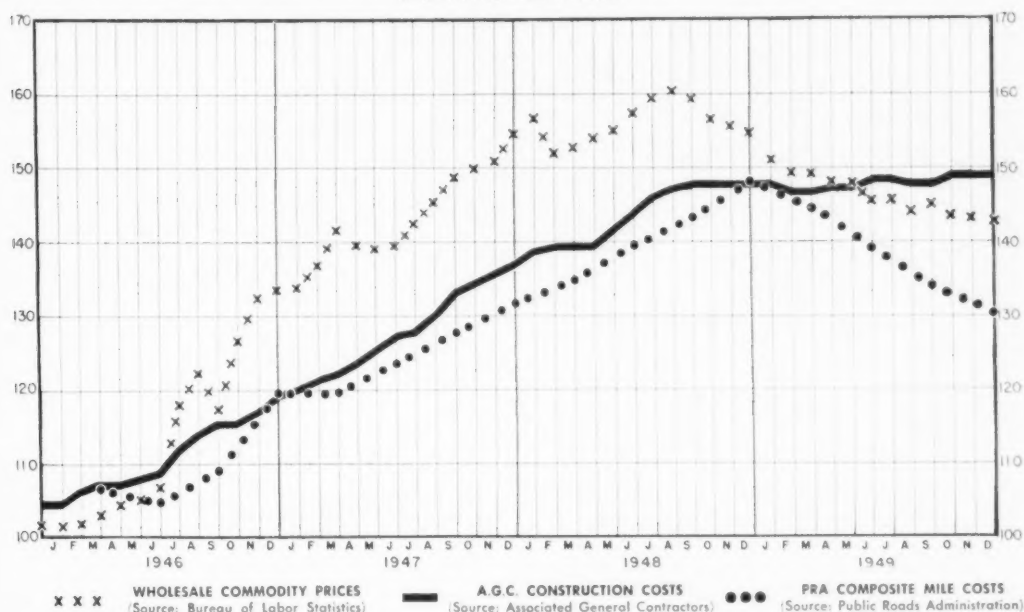
935 Blackstone Ave., Waukesha, Wisconsin



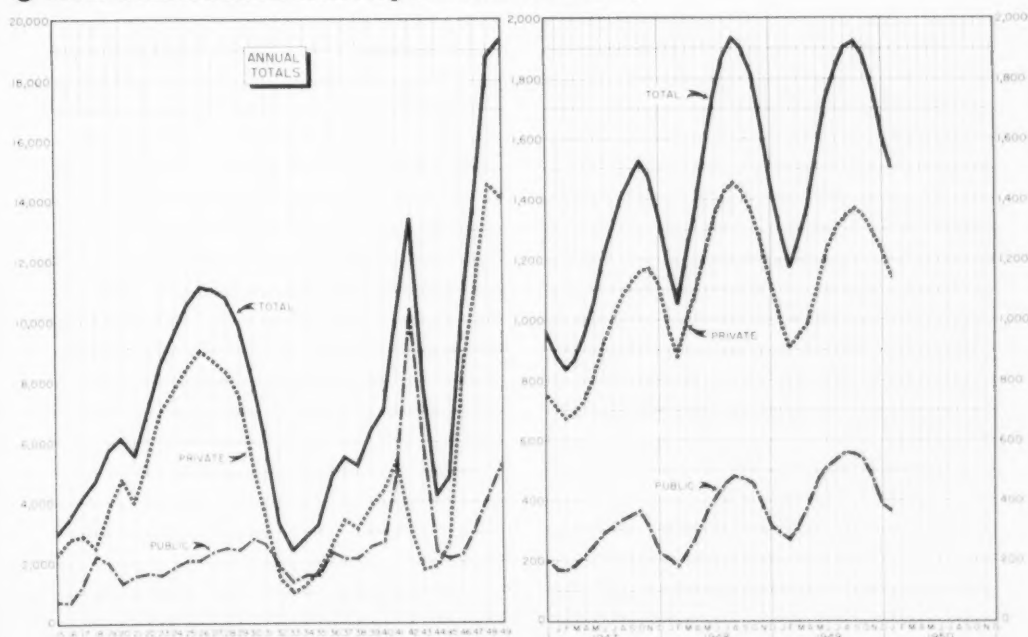
Here's a brand-new bulletin on Butler Roadbuilders Plants. Ask for Bulletin No. 205.

● Postwar Comparison: CONSTRUCTION COSTS VS. WHOLESALE COMMODITY PRICES

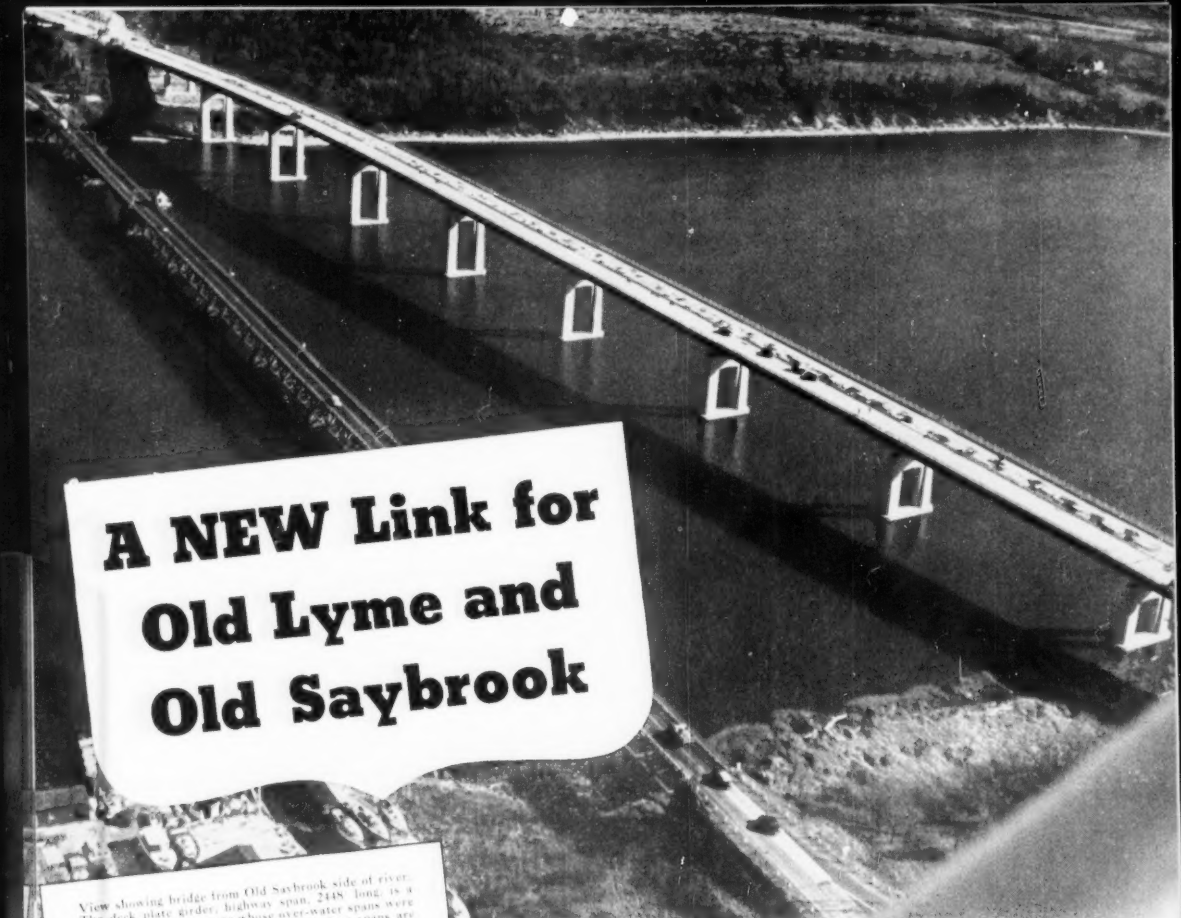
1945 AVERAGE = 100 PER CENT



● New Construction Activity (MILLIONS OF DOLLARS)



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR



A NEW Link for Old Lyme and Old Saybrook

View showing bridge from Old Saybrook side of river. The deck plate girder highway span, 2448' long, is a continuous type structure whose over-water spans were erected without falsework. The seven river spans are 240' long. The longest continuous steel went into this bridge which carries two 24' roadways, separated by 4' center mall and flanked by two 3' sidewalks, U. S. S. 1-Beam-Lok was used for the gutters, center mall and concrete filled sidewalks. (Old bridge with bascule span which now bridge replaces shown at left.)

Progress photo showing American Bridge crews erecting 98-ton girders by use of traveling derrick and derrick boat.
Designed by: Connecticut State Highway Department
Consultants to Bridge Commission:
Howard, Needles Tammen & Bergendoff

FABRICATED AND ERECTED BY AMERICAN BRIDGE

THE Raymond E. Baldwin Bridge provides an important link carrying U. S. 1 over the Connecticut River between Old Lyme and Old Saybrook, Conn.

The superstructure for this monumental \$6,500,000 bridge was fabricated and erected for the State of Connecticut by American Bridge Company. In addition, American Bridge furnished the concrete roadways, sidewalks, gutters and center mall.

Across the country, projects such as this have helped to establish the fact that for "jobs well done" you can depend on American Bridge personnel . . . American Bridge facilities . . . American Bridge experience.

AMERICAN BRIDGE COMPANY

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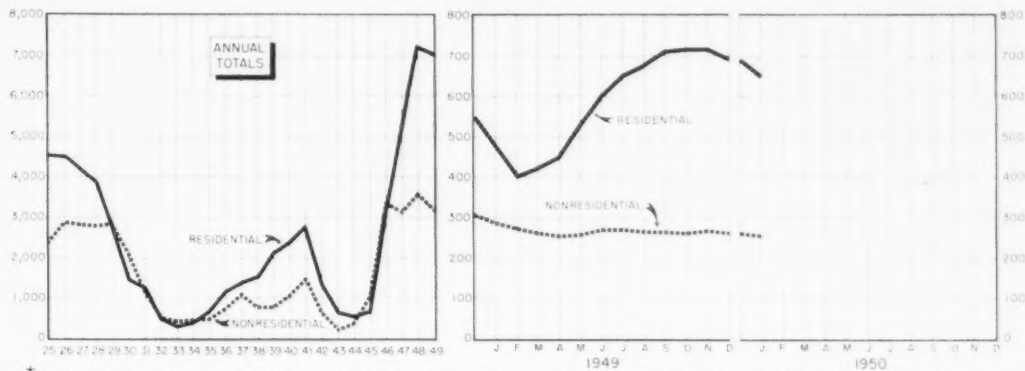


AMERICAN BRIDGE

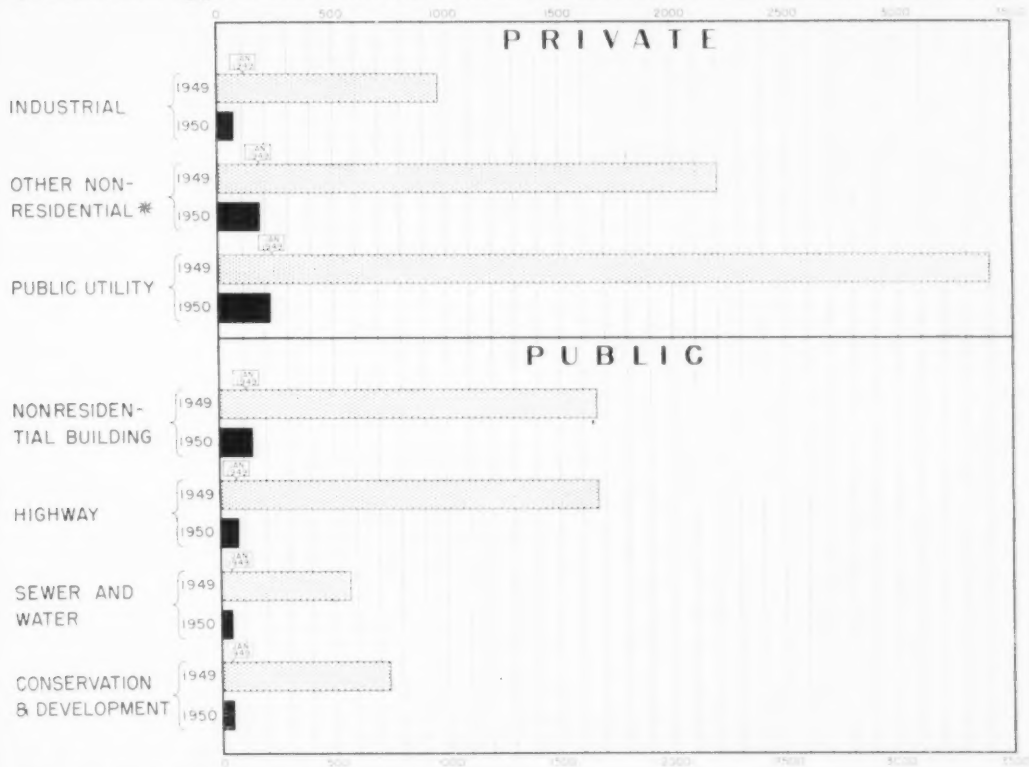
UNITED STATES STEEL

NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building* (MILLIONS OF DOLLARS)



● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1949 and 1950 VOLUME THROUGH JANUARY



no Deadweight



with

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Lowest maintenance cost . . .

The famous Rex design, built around the Chain Drum Drive, takes unneeded dead weight out . . . puts added strength and weight where it is needed most. For example, Rex uses heavier material in parts subject to wear and abrasion. Added strength where needed adds extra life, cuts maintenance and repair costs.

Less lost operating time . . .

Because Rex Moto-Mixers assure fastest charging, mixing and discharging . . . because they require far less maintenance and repair, they assure less lost operating time. You get more trips per truck per day . . . make more money per truck.

Lowest operating costs . . .

ALL THE FEATURES LISTED ABOVE
ADD UP TO AN IMPORTANT ADVANTAGE TO YOU . . . **LOWEST OPERATING COSTS** FOR BOTH MIXER AND TRUCK.

You get them all with REX MOTO-MIXERS

REX

CONSTRUCTION MACHINERY

CHAIN BELT COMPANY
1625 West Bruce Street, Milwaukee 4, Wis.

Gentlemen:
Send me Bulletins with the complete facts on why Rex Moto-Mixers can put more money in my pocket.

Name.....

Company.....Dept.....

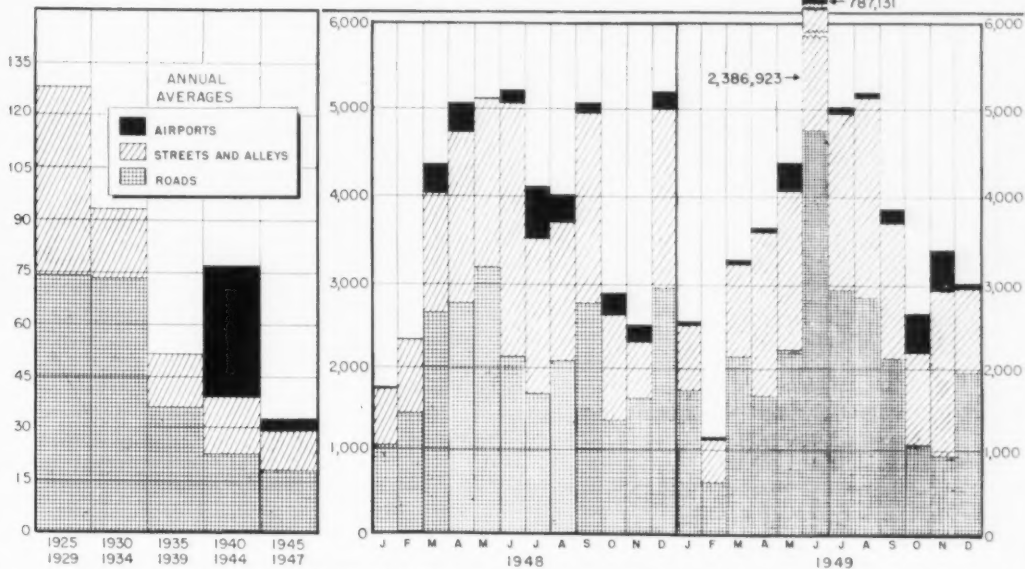
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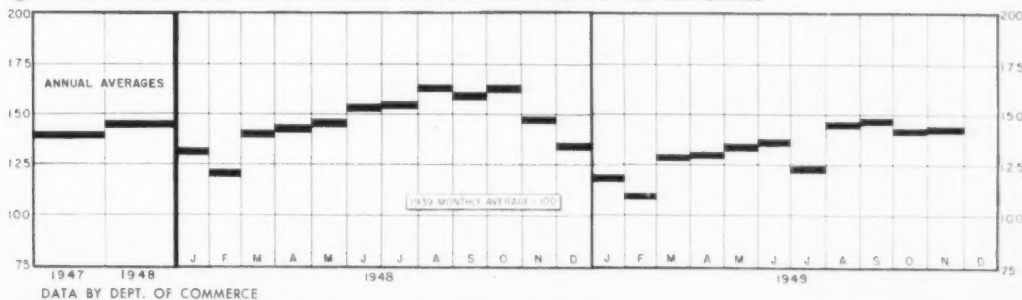
Concrete Surface Pavement Awards

MILLIONS OF SQUARE YARDS

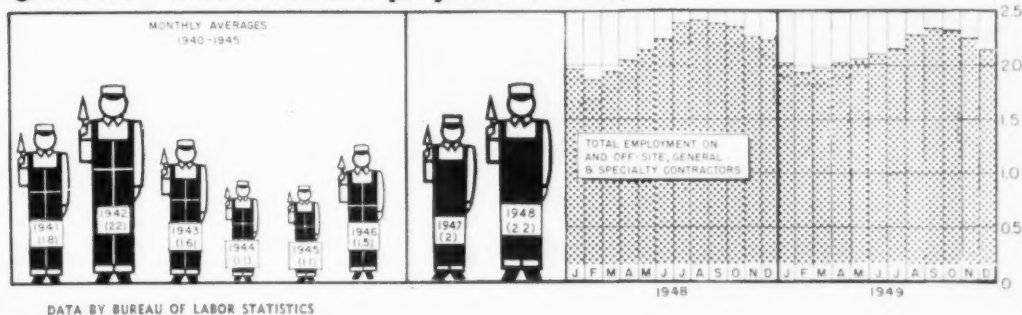
THOUSANDS OF SQUARE YARDS



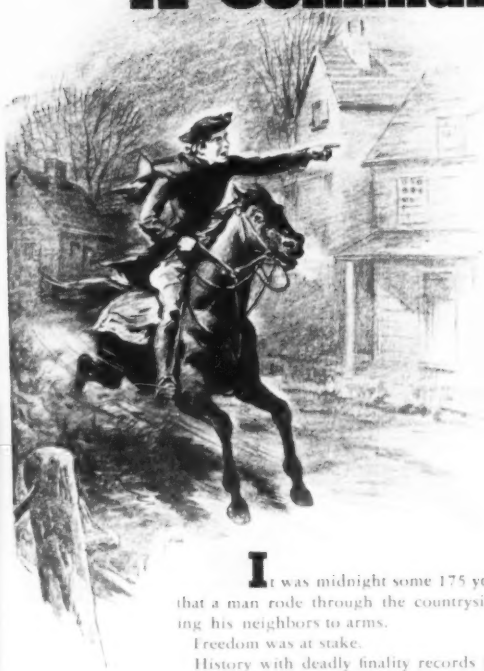
Materials Index: COMPOSITE PRODUCTION INDEX OF 20 MATERIALS



Contract Construction Employment (MILLIONS)



A Command Performance



It was midnight some 175 years ago that a man rode through the countryside calling his neighbors to arms.

Freedom was at stake.

History with deadly finality records the outcome of the struggle set off by that ride—a struggle that ended in freedom for all the people of this country—a freedom we take too lightly today.

Maybe it's because 175 years is a long time and none of us can remember that far back—maybe it's because we have gotten used to this thing called freedom—maybe it's because we have had it so long we can't imagine life without it—maybe we believe we just cannot lose it.

But we can!

Today, the threat against the freedom of the American people is as great as it was that memorable night 175 years ago. In some sense greater. Guns do not threaten us—not yet at least—but an idea, a plan, artfully disguised, promises us the "secure" life.

What will it cost? Not much—just our freedom.

Now, let's forego all the high sounding language and get down to cases. What threatens our freedom?

The threat is two-fold . . . from the outside and from within. It isn't hard to identify the danger from the outside. Some twenty years ago, the leaders of Communism and Socialism brought their threats into sharp focus when they declared their operating policies for the future. Both contained a simple philosophy. Bore from within—take a little at a time. Usurp high office—guide the evolution until it becomes complete.

Has any of that happened?

The Communist trials in our country have been most revealing. Every day the press and radio tell us of new infiltration into high places. Nor have the ranks of labor escaped.

What about the inside?

That can easily be answered by another question. Do the American people have as much freedom of use of the money they earn as they did ten years ago? They do not! More people surrender a larger part of their money for tax use than ever before in history. More restrictions curb more people than ever before. More compulsion over the entire populace is advocated. It is a mounting trend becoming more inclusive every year. All of this is offered under the glib promise of liberating man from economic servitude—of a planned life—a total welfare.

So, we have the two threats . . . one from the outside and one from within.

It is doubtful that the American people are fearful that Communism will take over our country in the foreseeable future. It is doubtful too that they are unduly alarmed that Socialism as a method of government will replace our government.

But, what they do not understand is that a creeping Socialistic pattern is spreading itself from within—that it can advance to a point from which there can be no retreat. Because this Socialistic pattern moves forward a little at a time, it is not spectacular enough to be recognized for the dangerous thing it is. It is so easy to accept glittering promises—broad generalities, that mask the eventual result.

So, what is to be done about it?

We believe the state of the nation calls for a Command Performance from Business—a performance to stop this creeping Socialistic pattern which threatens the freedom of all.

Why does business get the call? There are two reasons.

First, business should do this job because of its obligation to people. That is not a new contention at Ceco. For three years, Ceco has been advancing the thought that the prosperity and security of our nation are tied unremittably to a four letter word W-O-R-K. Ceco has said and still says management must work *more* at managing. We believe this job is the most important task in the over-all concept of management. It is

for American Business



up to alert management to provide real security in the present, as well as the future, to prove that responsibility for economic welfare belongs in private, not in public hands.

The second reason is that business—business men—are the best qualified for the job because American business knows most about selling. Businesses grow because business men sell their product. Is merchandise more important than the system which produced it? Isn't the system worthy of our best selling talents too? Yes... Business must and should sell the idea that real security and freedom for all are possible only under a virile free enterprise system.



Business must expose the alluring misrepresentations that spawn the myth "you can get something for nothing." It must boldly proclaim the simple truism that welfare projects cost money—cost the people their own money. For government has no money except that which is given it by the people through taxes. It must show that excessive taxation is creating a competition to industry which is challenging its right to lead—its right to guarantee economic freedom to people. It must question the cost which could be more than money. Unchecked, taxes can bankrupt the people, bankrupt business, thus making it impossible for individuals acting in private capacities—for business, through free enterprise management—to provide jobs, improve working conditions, assure real security.

It was protest against excessive taxation that occasioned the midnight ride 175 years ago. Now, as then, the same danger threatens.

Yes, freedom *is* at stake!

Business must create a crusading attitude toward free enterprise. Here the problem is not simple. For lately, the people are taking lightly our system of private endeavor which has had a moving influence on life around the world and

given us the highest living standards ever. They are "going along" thinking little of where it leads. They are not yet alarmed. Therefore, *un-revered* belief in that which we so casually call the American Way of Life must practically be revived. New vigor must fire *appreciation* of the system of individual effort and reward. There must be *reaffirmation* of faith in the dignity of man, in the real security to be found only in the individual acting in self-interest guided by conscience and a sense of fair play. All the people must be awakened. There must be *150 million individual* crusades in this country, acting in concert, to keep the American Way of Life vital.

Business men must light the fire of a passionate belief within all the people—a belief in our way of life that burns brighter than any fanatical faith in the destiny of any other system.



Once the people know the danger, once their enthusiasm for incentive living reaches crusading fervor, they will know how to act. They will see through the will-o'-the-wisp promises of an inexhaustible public purse. They will recognize the fallacy of "something for nothing." Their "horse-sense" will renounce it. But to bring all this about, business men must become vocal. Each business must inform its own people. From little companies employing only a few, to big corporations employing many thousands. This program can succeed. The drift toward public dependency can be stopped but business men must be articulate and act decisively.

Mr. Chairman of the Board, Mr. President of Industry, Vice Presidents, Managers, yes—all of us—must get off of our pants and into the plants. We must meet with the people... talk with the people... work with the people. This isn't something that can be done by writing a check!

Let's accept this call for a Command Performance now! Today!! This very minute!!!



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BLAW-KNOX steel forms

save one costly concreting operation

on a

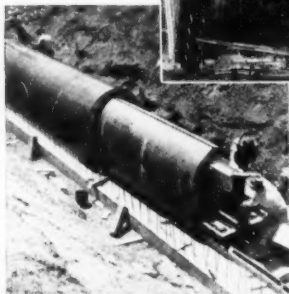
BIG TUNNEL JOB



Original specifications on this big tunnel concreting job called for four operations ... pouring side walls, placing arched roof, then the ceiling slab, and the floor. Collaborating with the contractor, Blaw-Knox engineers demonstrated how Blaw-Knox collapsible Steel Forms could be combined to permit concreting of side walls and roof arch in one operation. One step in construction was saved, and the necessity of using an expensive copper water stop between the wall and the arched roof was eliminated. The time saved expedited completion of the job. A daily concreting progress of 50 ft. was obtained by telescoping 50 ft. units of combined side wall and arch forms. Such Blaw-Knox consultation service in planning profit-making construction jobs as early as the blueprint stage is available to any contractor without obligation.



Right—Typical of the wide variety of jobs on which Blaw-Knox Steel Forms are used, this super highway viaduct was built with three sets of Blaw-Knox steel centering which carry the forms for the arch ribs.



Left—Blaw-Knox Steel Forms speed construction of a small sewer. Some of the recent typical jobs where Blaw-Knox forms and engineering service were used include: Brooklyn-Battery Tunnel, West Rock Tunnel (New Haven), Bull Shoals Dam, Delaware Memorial Bridge, Squirrel Hill Tunnel, Parkersburg Floodwall and many others.

TOUGH, UNUSUAL PROBLEMS SOLVED BY BLAW-KNOX ENGINEERING

EXPERIENCE As the original and most prominent manufacturer of Steel Forms for heavy construction, Blaw-Knox has been called upon to solve many tough and unusual concreting problems. The experience gained over 40 years has resulted in an engineering service unequalled for helping you obtain the most efficient forms for your particular job plus simplified forming methods that save time and money. Whatever your concreting problems, from tunnels to building big dams or bridges, to pouring small sewers or foundations, Blaw-Knox engineering skill and experience is at your service. Write today for advice or information, or ask for Bulletin 2035.

BLAW-KNOX

BLAW-KNOX DIVISION OF BLAW-KNOX CO., Farmers Bank Bldg., Pittsburgh 22, Pa.
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For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

This table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from October 15, 1947, to December 15, 1949.

They are presented here for use by employers who may wish to take these cost of living data into consideration when considering adjustments of wages based on increased living costs.

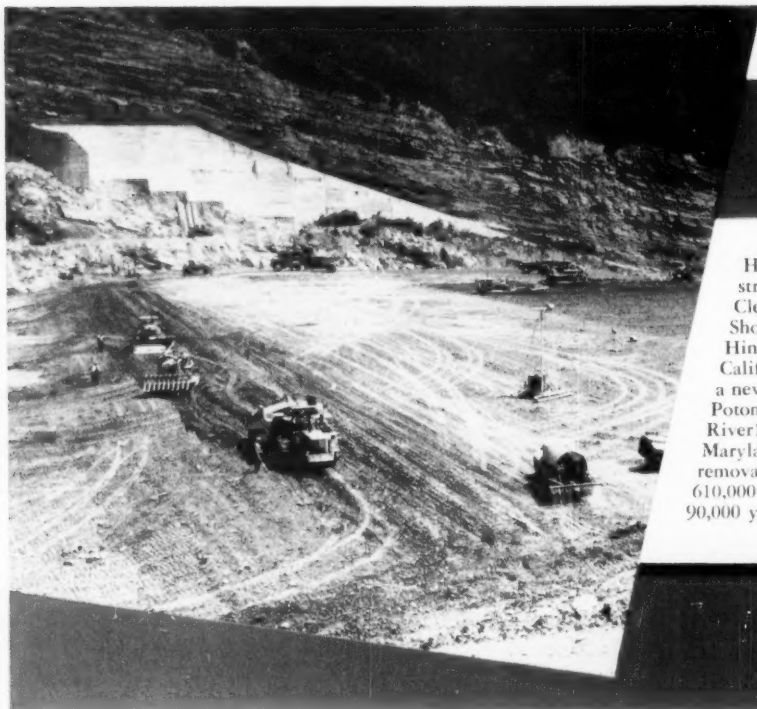
The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

| | 1947 | | | 1948 | | | 1949 | | |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | OCT. 15 | NOV. 15 | DEC. 15 | OCT. 15 | NOV. 15 | DEC. 15 | OCT. 15 | NOV. 15 | DEC. 15 |
| Average | 163.8 | 164.9 | 167.0 | 173.6 | 172.2 | 171.4 | 168.5 | 168.6 | 167.5 |
| Birmingham, Ala. | 169.7 | 171.6 | 173.8 | 176.9 | 175.0 | 174.8 | 170.3 | 170.5 | 168.4 |
| Mobile, Ala. | | | 170.3 | | | 173.5 | | | 167.4 |
| Los Angeles, Calif. | 161.3 | 164.1 | 166.0 | 171.8 | 172.2 | 172.7 | 166.5 | 166.6 | 165.4 |
| San Francisco, Calif. | | | 168.9 | | | 176.7 | | | 171.5 |
| Denver, Colo. | 160.4 | | | 171.0 | | | 164.6 | | |
| Washington, D. C. | | 161.7 | | | 167.1 | | | 166.2 | |
| Jacksonville, Fla. | | | 173.9 | | | 176.2 | | | 175.5 |
| Atlanta, Ga. | | 167.5 | | | 173.7 | | | 170.5 | |
| Savannah, Ga. | 171.5 | | | 178.4 | | | 173.4 | | |
| Chicago, Ill. | 167.3 | 168.3 | 170.1 | 178.1 | 175.9 | 175.4 | 174.4 | 175.3 | 173.2 |
| Indianapolis, Ind. | 167.8 | | | 178.0 | | | 172.1 | | |
| New Orleans, La. | | 173.2 | | | 176.6 | | | 173.3 | |
| Portland, Maine | | | 162.0 | | | 167.2 | | | 162.8 |
| Baltimore, Md. | | | 171.3 | | | 174.0 | | | 170.9 |
| Boston, Mass. | 157.5 | 158.3 | 160.4 | 167.8 | 166.7 | 164.7 | 164.1 | 164.0 | 162.7 |
| Detroit, Mich. | 166.7 | 166.6 | 169.0 | 174.6 | 173.1 | 172.8 | 168.7 | 169.8 | 169.1 |
| Minneapolis, Minn. | | | 166.2 | | | 170.8 | | | 167.4 |
| Kansas City, Mo. | 157.9 | | | 167.5 | | | 161.1 | | |
| St. Louis, Mo. | | | 167.9 | | | 171.1 | | | 167.8 |
| Manchester, N. H. | 166.1 | | | 176.5 | | | 169.3 | | |
| Buffalo, N. Y. | 162.6 | | | 172.7 | | | 167.4 | | |
| New York, N. Y. | 161.7 | 163.3 | 164.9 | 171.7 | 171.0 | 169.2 | 165.9 | 165.8 | 164.9 |
| Cincinnati, Ohio | 167.1 | 167.1 | 170.3 | 175.5 | 173.8 | 172.2 | 168.7 | 168.3 | 167.8 |
| Cleveland, Ohio | | 166.9 | | | 176.2 | | | 170.3 | |
| Portland, Ore. | 166.5 | | | 180.1 | | | 173.6 | | |
| Philadelphia, Pa. | 162.2 | 164.2 | 166.3 | 174.1 | 171.7 | 170.6 | 168.9 | 168.6 | 167.3 |
| Pittsburgh, Pa. | 167.8 | 168.1 | 170.2 | 177.1 | 175.9 | 174.9 | 171.1 | 171.3 | 170.3 |
| Scranton, Pa. | | 165.2 | | | 169.4 | | | 166.3 | |
| Memphis, Tenn. | | | 173.5 | | | 174.3 | | | 170.8 |
| Houston, Texas | 163.4 | 165.8 | 169.3 | 174.7 | 173.9 | 173.8 | 172.0 | 173.3 | 173.2 |
| Norfolk, Va. | | 168.2 | | | 174.0 | | | 168.2 | |
| Richmond, Va. | 161.7 | | | 170.0 | | | 164.9 | | |
| Seattle, Wash. | | 166.2 | | | 174.3 | | | 171.6 | |
| Milwaukee, Wis. | | 164.0 | | | 171.2 | | | 168.4 | |

GULF PRODUCTS *and* FINE SERVICE

keep equipment rolling

at Savage River dam



Hunkin-Conkey Construction Company, Cleveland, Ohio and Shofner, Gordon, & Hinman, Los Angeles, California, are building a new dam on the upper Potomac River, (Savage River) near Westernport, Maryland. Work includes removal of approximately 610,000 yards of earth and 90,000 yards of rock.

ANOTHER big earth-moving project where Gulf quality products and cooperative services are working as a team to help the job roll smoothly and efficiently.

Here are a few of the reasons why so many leading contractors rely on Gulf to fuel and lubricate their equipment: Gulf lubricants provide an extra margin of protection. Gulf fuels

insure full power. Gulf supplies expert engineering counsel and prompt delivery service. Result: top performance from equipment, fewer delays, lower maintenance costs, bigger profits!

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Sidelights for Contractors

By John C. Hayes, Legal Adviser

Taxes

Stockholders' Sale of Corporate Assets.—The Supreme Court has upheld a Court of Claims decision that a sale by stockholders of the assets received by them from a corporation as a liquidating dividend in kind was properly regarded, on the supporting evidence, as a sale by them rather than by the corporation, and thus that the corporation was not taxable on the gain resulting therefrom. A subsidiary finding that a major motive of the stockholders was to reduce taxes did not bar this conclusion.

Net Operating Loss.—A net operating loss must be computed on the basis of the tax laws applicable to the year in which the loss was suffered, the Supreme Court has determined, rather than on the basis of the tax statutes in effect during the year to which the net operating loss is sought to be carried over or back as a deduction.

Sale of Rental Machines.—Where a corporation during the tax years at issue was able to purchase more machines than ordinarily and thereupon deemed it advisable to sell a number of its oldest machines used in its regular business of renting such equipment, the Tax Court concluded that the profit on such sales could be reported by the corporation as capital gain.

Fraudulent Return.—While failure to file a required income tax return is not a felony under Section 145 (b) of the Internal Revenue Code, a Circuit Court of Appeals states that this does not prevent the conviction thereunder of a taxpayer who wilfully files a false return. A man filing no return makes no misrepresentation, while one wilfully filing a false return has endeavored to mislead the government by creating an appearance of compliance.

Reasonable Compensation.—In reversing a Tax Court opinion that had disallowed to a corporation the deduction of a portion of the compensation paid three of its officers as unreasonable in amount, a Circuit Court of Appeals said, in part: "The fact that compensation under a contract bonus

and commission basis is larger in a particular successful year than in the immediate preceding years does not make it unreasonable, where the incentive principle of compensation has been fairly entered into between the parties and has been in satisfactory operation over a period of years, and the profits of the business in that particular year are ample to pay such compensation without prejudice to the payment of reasonable dividends and the financial condition of the company."

Inspection of Corporate Tax Returns.

—By an Executive Order of recent date, to aid the Federal Trade Commission in the carrying out of its duties, the commission has been authorized to inspect corporation income tax returns made for the calendar year 1949 and for fiscal years ending in the calendar year 1949 and for any taxable year ending after June 30, 1949, and before July 1, 1950.

Exempt Organizations.—The Supreme Court has refused to review a lower court decision denying exemption from income tax under Code Section 101 (9) to an automobile association organized to serve commercial as well as pleasure vehicles. This continues the trend of recent court decisions unfavorable to a tax-exempt status for automobile clubs.

Depreciation.—The Tax Court, with some of its members dissenting, has allowed the heir of a lessor of property to take depreciation on an interest that descended to the heir in a building erected upon the property of the lessor by a tenant at the latter's expense. The fair value of the improvement at the time of the lessor's death, as used for estate tax purposes, was held to be the basis for depreciation, notwithstanding the government's contention that depreciation should not be allowed since the heir had no capital investment in the property.

Public Contracts

Finality of Contracting Agency's Decision.—Upsetting an opinion of the Court of Claims, the Supreme Court held that a decision by the secretary of war denying extra compensation to

a government contractor for grading work claimed to be outside the requirements of the contract was final and conclusive upon the parties, in accordance with the terms of their agreement. If a question of fact, the provisions of Section 15 of the standard form construction contract were held to be controlling, while, if a question of law, the provisions of Section 2-16 of the specifications required the same result.

Assignment of Progress Payments.

—A Circuit Court of Appeals has sustained the validity of an assignment by a public contractor of the government's progress payments to a bank as security for loans to pay for labor and materials. Such assignment prior to default gave the bank a claim to such funds superior to that of the surety company for reimbursement for certain payments under its surety bonds. As to the 10 per cent retained each month by the government, however, the court stated that such sums were held for the protection of the government and the surety.

Failure to Make Bond.—The Supreme Court has refused to review a Court of Claims decision limiting damages recoverable from a public contractor under certain facts. As reported in the September CONSTRUCTOR (page 21), a low bidder, whose right to proceed with a contract was terminated by the government on his failure to supply a performance bond and who was awarded the contract at a higher cost on being low bidder a second time after readvertisement for bids, was permitted by the Court of Claims to recover the higher price in the later contract diminished only by the amount of the bid bond originally posted.

Cost-Plus Contract.—Fraud in the submission of vouchers by a cost-plus-fixed fee contractor for reimbursement of costs under a government contract, the Court of Claims has determined, does not forfeit the contractor's claim for the unpaid balance of his fixed fee. Under the statute, the court said that forfeiture is limited to the particular claim in which fraud was practiced, such claim in this instance being only that for reimbursement of costs.

"Euclid"



Combining rugged construction, large capacity and high speed, Euclids turn payloads into profits on off-the-highway construction and industrial jobs.

Owners prefer Euclids because they are efficient under a wide range of operating conditions, and have proved their ability to haul more loads at less cost. Long life and low maintenance cost result in better profits on mining and construction jobs where "Euclid" set the pace.

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**These Bottom-Dump
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Low loading height and wide top area for fast, easy loading...13 cu. yds. struck measure... payload capacity 40,000 lbs.... loaded top speed 26 m.p.h.... Diesel engine of 130 to 200 h.p. rating... built for off-the-road hauling of earth, ore, sand, gravel and other materials.



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Move the Earth



Drive for Separate Contracts

GENERAL CONTRACTORS undoubtedly will resist a new drive which has been undertaken to urge legislation by the states and federal government to require the segregation of contracts on public works construction.

The January 1950 issue of the *Official Bulletin* of the Heating, Piping and Air Conditioning Contractors National Association reports the actions of that association. A story is on page 32 of this magazine. The bulletin states in part:

"Your Board of Directors urges every local association and every member to begin *now* promoting legislation in your state looking toward the establishment of a mandatory system of taking separate bids and letting separate contracts for the three mechanical trades, the heating, ventilating and air conditioning; the plumbing; and the electrical work."

The heating, piping and air conditioning contractors association has revived a controversy which has recurred in the construction industry from time to time for many years. Various groups of subcontractors have sought escape from the abuses of a few unscrupulous general contractors by seeking to deal directly with the owners.

The reason for the heating, piping and air conditioning contractors for taking this action at this time appears to be so that their members can operate more profitably. No mention is made of the public interest.

This move presumably will be resisted by responsible general contractors throughout the country, as similar moves have been resisted in the past, for the reason that the separation of contracts removes part of the project from the control of the general contractor and deprives him of the opportunity to properly correlate the entire operations of the project for maximum efficiency.

The basic principle of this old controversy is not what is to the best business advantage of the mechanical contractor, or the general contractor; but what is to the best advantage of the owner who is paying for the project.

One of the principal reasons for the awarding of one over all general contract on a project—whether it is publicly or privately financed—is to centralize the complete responsibility for construction of the entire project in the general contractor.

Experience has demonstrated that the owner benefits when the responsibility is centralized in a competent and reputable business organization.

It is presumed that this revival of the trend toward the separation of contracts will receive the attention of 31st annual convention of The Associated General Contractors of America late this month in San Francisco, California.

Construction Supremacy

IT SEEMS the fashion of self-styled liberals to attack the reputation of any calling on which they have designs.

An outstanding application of the smear technique has been the creation of the myth that the American construction industry is backward and incompetent. This charge seems strange when one reviews the industry's magnificent achievements—its Hoover Dams and Rockefeller Centers, the finest school and hospital and institutional buildings in the world, the most efficient factories, and the world's most comfortable and convenient houses.

The rest of the world acknowledges American supremacy in construction know-how. During the war, the British and Russian governments sent to this country official commissions of architects, engineers and builders to inspect our outstanding structures and to learn all they could about the way we do things.

Representatives of 11 American engineering and contracting firms have surveyed Iran, having been engaged by that country to prepare a program for its industrial development. American designing offices and building companies are busy on many projects throughout the world. American building materials and equipment are in demand everywhere.

One is led to suspect that among the vociferous critics of the construction industry are some who know that successful attacks upon it could help to undermine the fabric of free enterprise.

(Reprinted from The Springfield (Mass.) Union)

The Construction Budget

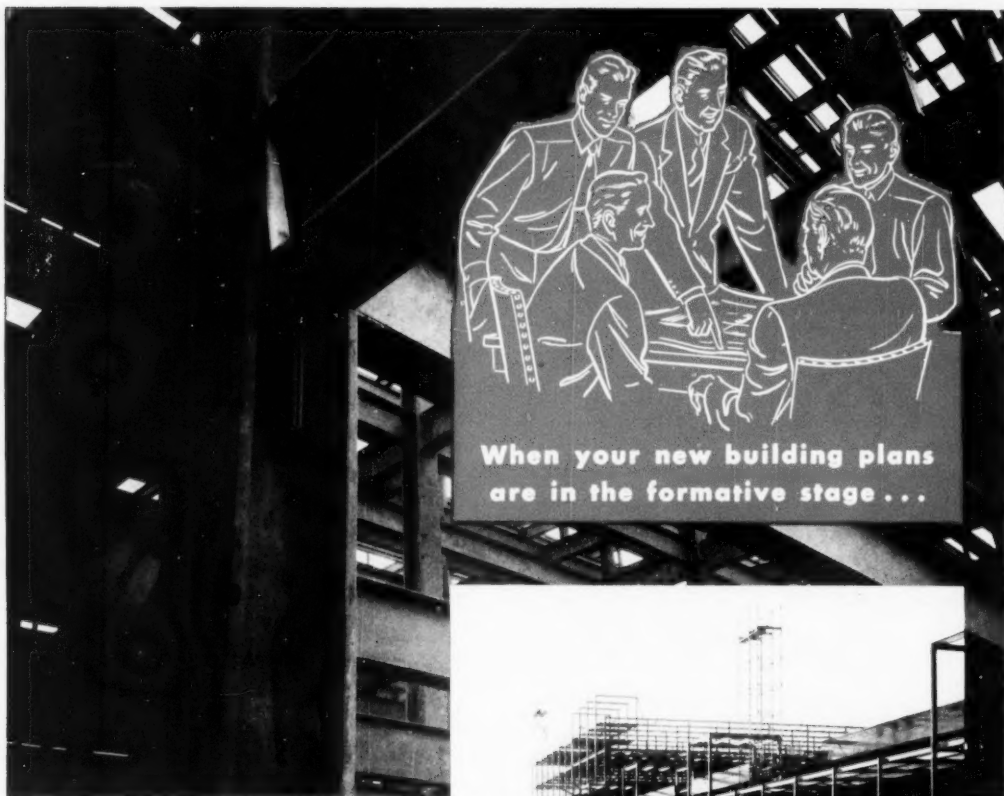
THE FEDERAL budget recommends expenditure of about \$3.6 billion for civil public works in fiscal year 1951 (see page 28). This is the largest amount ever recommended in peacetime.

However, as pointed out by the President, about 95 per cent of the expenditures is considered only the minimum requirements to efficiently continue those projects and programs already under way.

The Associated General Contractors of America has long advocated the carrying out of essential public works in an orderly, and therefore, in an economical manner.

Some private groups who have been studying ways in which the federal budget could be reduced have suggested further study, and possible reductions of, the public works program.

Such studies must not overlook the investment value and returns to the nation—both in wealth and in better living—that public works programs now under way are producing.



This great plant of the Sunshine Biscuit Company, at Kansas City, Kansas, followed the Allied plan from blueprint to finished erection of 4,242 tons of fabricated structural steel.



Consultation with ALLIED

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● The Allied staff takes over when you send your plans and specifications to us for estimating.

First, bids are submitted for your work. Then, when awarded the job, work starts on structural units, according to your plans and specifications, in one of Allied's plants. Here unified control and modern equipment speed your job through without a bottleneck. Finally, "on location," the erection crew proceeds to button up structural steel on the due date.

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» WITH A RECORD year behind it, the construction industry has the possibility in 1950 of performing the greatest one year volume of construction in history—both dollarwise and physical—ranging from \$29,000,000,000 to \$30,000,000,000. The Associated General Contractors of America said last month.

A study of private and governmental estimates by the association, which represents more than 5,500 leading construction firms throughout the country, indicates that, if present favorable business conditions prevail, the industry can put in place this year more than \$20,000,000,000 worth of new construction, and approximately \$9,000,000,000 in maintenance and repairs.

Not Listed by U.S.

The figure compares with a 1949 total volume of almost \$28,500,000,000, of which about \$8,750,000,000 is estimated for maintenance and repairs.

Volume figures for both years include rough estimates for some types of construction which have not been included in official government estimates, such as the vast program of the Atomic Energy Commission.

The association stated that a total of \$29,000,000,000 or more of construction in 1950—including both new work and maintenance and repair—represents an estimate of possibilities for the industry, rather than a forecast that the volume would be attained. Continued favorable business conditions and price stabilization, and sustained general optimism for the future by prospective purchasers of construction would be required for attainment of this volume.

"The increasing level of construction expenditures indicates that the industry is gradually regaining its necessary role in the nation's economy," stated H. E. Foreman, managing director of the association.

"Last year's volume, roughly 11 per cent of the gross national product of \$258.7 billion, approached the part that construction played in the national economy during the prewar years—ranging from 12 to more than 13 per cent of the total production of goods and services, with the exception of the depression period.

"Since the end of the war, the industry has slowly, but steadily been regaining its position. In 1945, construction volume was 1.5 per cent of the national product; in 1946, 7.7 per

\$30 Billion Construction Year Possible, A.G.C. Study Shows

- \$20 Billion New, Balance Maintenance, Repair
- Government Estimates Omit Certain Work

cent; 1947, 9.2 per cent; and 1948, 10.2 per cent.

"Last year, as noted by the President's Council of Economic Advisers, the strength shown in construction was a powerful force in minimizing the general decline in the first half of the year and in bringing about a revival during the latter half of the year.

"In order to most effectively meet the national needs demanded by a growing population, the industry should operate at the level of performing more than \$20,000,000,000 of new construction annually for the next several years."

Favorable, Unfavorable Factors

Favorable conditions currently prevailing are: Availability of materials and manpower, stabilization of construction costs below the peak of more than a year ago, high productivity of construction labor, and keen competition in the industry.

Public works construction is high, offsetting a decline in private industrial building. Federal work is proceeding in an orderly manner on large projects which were begun in the past, and needed new federal building construction—deferred during the war—is planned for the near future. Local public works by states and municipalities—such as schools, hospitals and community facilities—are increasing with improved financial conditions. Federal aid programs, such as airports, highways, and hospitals, are on the upgrade, and local construction is expected to be spurred further by the reimbursable advance planning loan program soon to get under way.

Residential construction is expected to approach the all-time record of more than 1,000,000 units placed under construction last year, although this type of work probably will taper off gradually during the next few years as demand is met.

The public is well aware of the pressing need for more and better highways throughout the country, and some states are acting to take advantage of lower highway construction costs, which have dropped more per-

centagewise during the past year than most other types of construction. Highway contractors have the capacity to expand their operations further than their projected 10 per cent of new construction during 1950, estimated at about \$2,000,000,000.

If the gradual upswing in business conditions reported by economists should continue, it may influence more business investment in construction this year than had been anticipated, but modernization is expected to take precedence over new construction.

Unfavorable factors which could slow the sensitive pulse of construction are the possibility of international developments; legislative action unfavorable to investment in construction, such as taxes; strikes in major industries that may affect the production and prices of construction materials, and pessimism about future business conditions by prospective purchasers of construction.

Electrical Boycotts Stop

Boycotts of electrical equipment not carrying its own label have been stopped. Local No. 3 of the International Brotherhood of Electrical Workers in the New York City area, has informed contractors, manufacturers, wholesalers and jobbers:

"In order to avoid any possible misunderstanding, this is to inform you that you are not required to purchase or specify any electrical materials or products manufactured by the members of Local Union No. 3 and that you may purchase and specify any electrical material and products no matter where or by whom manufactured, and that members of Local Union No. 3 will handle and install such electrical material and products."

The National Electrical Manufacturers Association had been collecting evidence to proceed under the Taft-Hartley Act and other statutes to seek in the New York area an end to the practice of boycotting products not carrying Local No. 3 or I.B.E.W. labels.

Congress Studies Truman's 1950 Program for Country

- State of Union, Tax Messages Outline Fair Deal Goal
- Housing, Schools, Valley Authority Plugged
- President Would Increase Corporation Taxes

» THE SECOND session of the 81st Congress ended its first month with a big and mostly familiar Truman program before it, and without much done on that program—or much indication that a lot would be done.

The President, seemingly highly confident despite strong indications that Congress would continue to be balky, had laid down his program in four major documents: the State of the Union Message to Congress, the Economic Report of the President, the Budget Message and the annual message on taxes. (See separate stories in this Constructor on the economic report and the budget message.)

The State of the Union Message reiterated much that Mr. Truman had said in outlining his Fair Deal, and added a few new starters for good measure. Interesting among these were proposals for a huge program of federal aid to cooperative multi-unit dwellings and a new emphasis on the necessity for federal aid for the construction of schools. (See other stories in this section.)

Tax Changes Recommended

The tax message called for an increase of one billion dollars in federal revenue through higher taxes on corporations, gifts and estates. It called, too, for a reduction in excise taxes and the closing of what Mr. Truman called loopholes in the present tax law.

It was interesting to note that, while the President in his State of the Union Message dropped all references to need for inflation controls, a point he stressed last year, he at the same time came back in the tax message strongly for higher corporation taxes—a point on which he has been soundly turned down twice by Congress.

In the field of corporation taxes, Mr. Truman suggested these changes:

Rates on corporation incomes above \$50,000, now taxed at 38 per cent,

should be increased; rates on incomes between \$25,000 and \$50,000, now taxed at the "notch" rate of 53 per cent, should be reduced to the same rate as applies above \$50,000; existing favorable rates on incomes below \$25,000 should be retained. (Mr. Truman contended that such an increase would affect less than one-tenth of all corporations.)

Loss carry forward provisions should be extended from two to five years; present credit for taxes paid abroad should be extended and generalized in order to encourage investment abroad; the foreign residence requirement for exemption of earned income abroad should be liberalized. (Mr. Truman argued that such changes would stimulate expanded United States investments abroad.)

How Congress Reacted

Mr. Truman carefully hedged his recommendation that excise taxes be reduced, saying only that these should be cut to the extent that could be made up by the plugging of loopholes. This, however, was the only part of the tax message which drew any substantial Congress support. Nobody in Washington believed that Congress was going to increase corporation taxes.

On the whole program as laid down in the State of the Union Message and the others, in fact, there seemed to be a feeling that an election-year Congress probably would do little more effectively than pass the appropriation measures necessary to keep the government going—and then adjourn to go politicking.

In his State of the Union Message, Mr. Truman said once again that America's success in working with other nations to achieve peace depended largely on what was done at home to build economic growth, social health and vigorous public and private institutions. Peace, he made it clear, was a principal aim of his policy.

Then, he explained that it was necessary to assure a fair distribution of increased national prosperity to all groups within the nation. In such a land, he said, all can grow and prosper together. (This thought was expanded in the Economic Report of the President.)

These gains, he emphasized, could best be achieved if businessmen maintained their spirit of initiative and enterprise—a somewhat new emphasis for this Administration—and it was necessary to this end that monopoly be curbed and small business be aided.

The Taft-Hartley Act came in for another Truman pasting, although it was not mentioned by name. The federal statute now governing labor relations, Mr. Truman remarked, was both punitive in purpose and one-sided in operation.

Federal Power Projects

Then, asserting that one of the most important factors in the nation's continued growth was construction of more, good, up-to-date housing, Mr. Truman outlined his two-billion-dollar program for housing for the middle income group. At the same time, he called for a continuation of rent control for another year.

Federal power projects, specifically the Columbia Valley Authority, the St. Lawrence Seaway and the New England region, got a Presidential plug. So did schools. Mr. Truman said the present Congress could no longer delay in providing assistance to the states so that they could provide and maintain adequate schools.

In the social field, Mr. Truman called for developing the social security system further, for strengthening unemployment compensation, for developing a medical insurance program, for adopting his highly controversial civil rights program. In an obvious reference to the Brannan plan, he asked Congress to improve what he called "inadequate" farm legislation.

In the foreign field, Mr. Truman emphasized the battle of the democracies against the Communist ideology. He again stressed this nation's drive for peace, and coupled with this drive his Point 4 program—that which calls for the use of American capital and American know-how to develop the economically underdeveloped areas of the world.

Reaction to the various presidential messages was pretty much along straight party lines except for three

important things—no leading Democrats supported the President's plea for increased taxes; many leading Democrats joined their Republican colleagues in attacking a combined tax-and-budget operation which meant a deficit of \$5,500,000,000 for the coming fiscal year; no prominent Southerner supported the civil rights program.

Would Shift Construction

A bill to lump virtually all federal construction, other than highways, in the Department of Interior was introduced into the Senate in January by Senator Harry P. Cain (R., Wash.). The measure (S. 2833) follows the recommendations of the Hoover Commission on Organization of the Executive Branch of the Government (Page 23, January CONSTRUCTOR; Page 32, April 1949 CONSTRUCTOR).

The Senate Committee on Expenditures in the Executive Departments has not scheduled hearings on the bill as yet.

The measure would transfer the civil functions of the Corps of Engineers and the construction functions of the General Services Administration and its Bureau of Community Service to the Interior Department, where they would be directly under the office of the secretary. It also would abolish the Bureau of Reclamation, the Bonneville Power Administration, the Southwestern Power Administration and the Division of Power as such and transfer their functions directly to the office of the secretary. All of these units now are parts of the department.

'Basing Point' Blocked

By a voice vote, the Senate late in January rejected the compromise legislation to legalize the delivered pricing (basing point) system which House and Senate conferees had agreed on and the House had approved last year (Page 32, November 1949 CONSTRUCTOR).

The Senate's action sent the bill back to conference and left supporters of the legislation small hope that they could obtain action from the 81st Congress. The successful fight against the bill was led by Senator Russell D. Long, Louisiana Democrat.

Senate Seen Set to Act on Co-op Housing

• Truman Pushes Two Billion Dollar Program

The Senate late in January was expected to act shortly on Administration proposals for a two billion dollar program designed, in the words of President Truman, to provide more than a quarter million good homes for families of "modest" income through cooperatives and other nonprofit organizations.

The proposal, along with certain amendments to the mortgage financing provisions of the National Housing Act, was wrapped up in amendments to S. 2216, the so-called Sparkman bill. These were the subject of hearings before a Senate Banking and Currency subcommittee during the month. Committee action was due as the month neared its end, and even opponents of the legislation expected the Senate to approve it. A stormy fight in the House seemed certain.

There would be established a National Mortgage Corporation for Housing Cooperatives, empowered to loan out up to \$2,000,000,000 to designated cooperatives and other non-profit organizations in loans up to 100 per cent of the value of the multi unit dwellings to be constructed. A portion of the amendments would authorize loans up to \$25,000,000 for advance planning of such dwellings.

The National Mortgage Corporation for Housing Cooperatives, which would operate under the direction of the Housing and Home Finance Administrator Raymond M. Foley, would be established on a mixed-ownership basis, with the initial capital supplied by the federal government, but with provision for a steady replacement of this capital by stock investment on the part of the borrowing cooperative and non-profit associations and for the corporation borrowing more in the private investment market, with 100 per cent federal guarantee of the bonds issued for this purpose.

The so-called Federal Housing Administration amendments are designed to extend on a permanent basis the FHA program for insurance of modernization and repair loans and to facilitate the production of rental accommodations of adequate size suitable for family living within the means, again, of moderate income families.

The modernization and repair loan

operation has been on a temporary basis, with frequent renewals, over a period of 15 years. It is due to lapse again March 1, and the amendment would make it permanent. The changes in the law dealing with production of rental accommodations for moderate income families go to the permanent housing section of NHA, rather than to the emergency housing section, which will be allowed to lapse March 1.

President Truman mentioned the housing program in his State of the Union Message, in his Economic Message, and in a separate message to Congress on housing alone. His budget provides for it. There has been strong union labor and social worker support. There also has been sharp opposition from such groups as the National Association of Real Estate Boards, the National Association of Home Builders and the Chamber of Commerce of the United States, among others.

Lustron Is Rebuffed

The widely publicized financial troubles of the Lustron Corporation, Columbus, Ohio, manufacturer of prefabricated steel houses, multiplied last month when the Reconstruction Finance Corporation rejected a Lustron reorganization plan which called for further federal funds. Lustron already has received \$37,500,000 in such loans.

The RFC's action followed its announcement of December 29, 1949, that the company was in default on its loans, some \$22,000,000 of which fell due during 1949. Late last year, the House rejected, in passing Public Law 387, 81st Congress, a so-called Lustron amendment which would have authorized \$25,000,000 aid to manufacturers of prefabricated houses. (Page 32, November CONSTRUCTOR.)

The Senate had approved the amendment, and there was talk in Washington last month that RFC was holding up foreclosing on the Lustron loans until a Senate Banking and Currency subcommittee could get more information on the plan.

President's Economic Advisers Stress Construction's Role

- Industry's Strength Factor in 1949 Revival
- Truman Sees \$300 Billion Annual Output Near

» THE ROLE of the construction industry as a stabilizing factor in the national economy—and the necessity for a continued high volume of construction—were stressed by President Truman last month in his Economic Message to the Congress.

This document, along with the President's State of the Union Message, and the considerably more detailed report of the Council of Economic Advisers to the President, outlined what the Administration believed the state of the nation's economic health to be at this time and what it believed should be done to improve that health.

Speaking generally, Mr. Truman said that the recessionary movement of 1949 had been stopped and that the country was now well headed for an annual output of \$300,000,000,000 within the next five years. He said the aim should be 61,000,000 employed in 1950. He further said that productivity per worker should be increased by at least 2 to 2½ per cent annually and that, from such an increase, there could come an increase of almost \$1,000 a year in the average family's income in the next five years.

Proposals Are Similar

The President, urging cooperation of all segments of the economy and the government, made proposals greatly similar to those with which he first greeted the 81st Congress last year. In every case, more detailed recommendations were to follow to Capitol Hill.

Of Mr. Truman's 12 major proposals, the following were of particular interest to the construction industry:

(1) Tax revisions to "reduce present inequities, stimulate business activity, and yield a moderate amount of additional revenue"; (2) A program to stimulate private investment in housing for middle income families (See Story on Page 25); (3) Establishment of a Columbia Valley Authority, and authorization of the St. Lawrence Seaway and power project (See Story on Page 50); (4) Grants to

states for surveys of the need for school construction; (5) Extension of rent controls for another year; and (6) Further emphasis on his so-called Point 4, which proposes development of economically underdeveloped countries with American capital and know-how.

Report on Construction

The statement on construction by the Council of Economic Advisers, on which Mr. Truman's remarks to Congress were based, follows in part:

"In spite of a slow start, the volume of construction in 1949 exceeded the high level attained in 1948. The strength in construction acted to minimize the general decline in the first half of 1949 and was one of the main forces of revival evident in the second half. . . . The backlog of contracts let is now considerably higher than a year ago, so that 1950 will begin at higher levels than 1949. . . .

"Programs for conservation and development of natural resources need to be expanded at a rate somewhat greater than the secular growth of the economy. The public expenditures involved are investments which result in the production of goods and specific purposes indispensable to the economic growth, nationally and regionally. . . . River basin development programs can account for a considerable portion of the 6,000,000 kilowatts of additional power capacity needed annually for some time in the future. . . .

\$4 Billion Annual Highway Need

"We have standards permitting measurement of our present deficiency in highways. A good highway costs less all around than a poor highway because of increased safety and savings in wear and tear on cars and tires. More than half of our major highways were built in the 1920's or early 1930's and have already served the major part of their useful lives. It would cost more to maintain them over the next decade than replace them; so our choice is between building good roads and riding on them,

or losing the price of good roads by riding on poor ones. Out of a needed expenditure of four billion dollars a year over the next decade, approximately one-half should be for replacement. . . .

"Construction has begun on several experimental atomic energy power plants, which may prove to be the forerunners of a new age in the application of electric power. The precise economic significance of the development can now be seen only dimly, but it can not be doubted that they will exert an increasing force in the growth of the American economy and in its several regions. . . .

"The need for improved educational facilities is persistent. The more urgent problem is the enlargement of staff and facilities required by the postwar growth in the juvenile population. Five years from now, elementary school enrollment will be 30 per cent above the present level. A similar expansion of secondary school enrollment will follow. Suffering as we do now from the overcrowded classrooms and overburdened teachers which are the nationwide rule, we should add approximately one-third to our elementary school plant capacity within a few years, replace an additional third, and increase the number of elementary teachers more than correspondingly. We shall have to expand secondary school facilities, but not so rapidly. . . .

Double Hospital Facilities

"To meet desirable standards, this nation should double its present acceptable (hospital) bed facilities by 1960. This would mean more than 900,000 additional hospital beds. . . .

"The Council believes that these programs for the development of basic physical and human resources should be primarily along lines of long-range, steady growth. By this approach, it should be feasible to arrive at determinations, partly but not purely economic in character, as to what part of a growing economy could be allocated to these fundamental objectives.

"This should contribute more to the stability of the general economy than the treatment mainly of these programs as compensatory devices. The outlook now—with neither inflation or deflation clearly in prospect—presents as good a time as any to develop these programs systematically and in close accord with the long-range needs of the country. The Council believes this is the sounder approach. . . ."

» IN A PROPOSED program of federal taxing and spending designed to reduce taxes, balance the budget, and produce a cash surplus of three billion dollars, in the year ending June 30, 1951, the Committee for Economic Development recommended many cuts in federal spending, but held at least tentatively to current estimates for expenditures on public works.

C.E.D. did, however, urge the closest study of the entire matter of public works, with an eye to holding the line or reducing.

C.E.D.'s recommendations were set forth through its Research and Policy Committee at a press conference in Washington.

Only Construction and Farms

In the recent survey of federal spending, only farm price supports and public works were held at the current level of expenditures in the C.E.D. program.

C.E.D. said that the program of its Research and Policy Committee would reduce expenditures \$6,700,000,000 below current levels, make possible a tax reduction of more than two billion dollars, and create a cash surplus of three billions under conditions of high employment. It added that the surplus should be applied to debt reduction.

The \$6,700,000,000 reduction is in total spending, it should be pointed out, and not in the national budget.

Principal items which C.E.D. listed as possible savings were \$2,800,000,000 in veterans' life insurance dividends, a non-recurring expense; a billion cut in Economic Cooperation Administration spending; \$800,000,000 in veterans' readjustment expenditures. Other items included a \$650,000,000 proposed cut in home mortgage purchases and a \$200,000,000 to \$400,000,000 proposed saving through administrative economies.

Statement on Public Works

Basically the program was an expansion of that which C.E.D. outlined in 1947 when it said: "Set tax rates to balance the budget and provide a surplus for debt retirement at an agreed high level of employment and national income."

Here is part of what the committee had to say on the question of public works:

"The public works program is one of the major problems in the budget,

C.E.D. Points Way to a Balanced Budget

• Industry Group Wants Public Works Issue "Resurveyed"

not only for next year but also for the longer future. The Budget Bureau has done commendable work, within the limits of its authority, in controlling public works expenditures. Nevertheless, expenditures for this purpose about doubled—rising from \$1,600,000,000 to three billions—from fiscal 1948 to fiscal 1950 and there is a strong tendency for them to grow still further.

"An alarming aspect of this situation is that it threatens a repetition of the old pattern in which the volume of public works rises parallel to private construction, pushing boom trends higher and unstabilizing total construction activity.

Of Greatest Importance

"We consider it of great importance that every effort should be made to hold down the rate of public works expenditure in fiscal 1951. We believe that the whole area should be resurveyed, with the immediate object of deciding which projects already authorized or even already started should be postponed.

"In part, the tendency for public works expenditures to rise reflects pressure from local groups for proj-

ects which need to be held back in the national interest, however meritorious they may be when viewed locally. Many of these groups clearly recognize the need for sound budgetary policy. In this situation, there is an opportunity for these groups to contribute directly to sound policy by self-restraint."

Pointing out that with a budget of the current size, the federal tax burden is a serious impediment to economic growth, C.E.D. said it believed that the best solution for the fiscal year ending June 30, 1951, would be:

"A. Provide for a moderate budget surplus to be realized under conditions that make a surplus possible and desirable, namely, conditions of high employment;

"B. Reduce or postpone expenditures that are not immediately essential to the national security or general welfare, and operate all programs more economically and efficiently;

"C. Revise the tax system in ways that will yield the most benefit to the whole economy from the small net revenue reduction that seems possible with the achievable expenditure reductions."

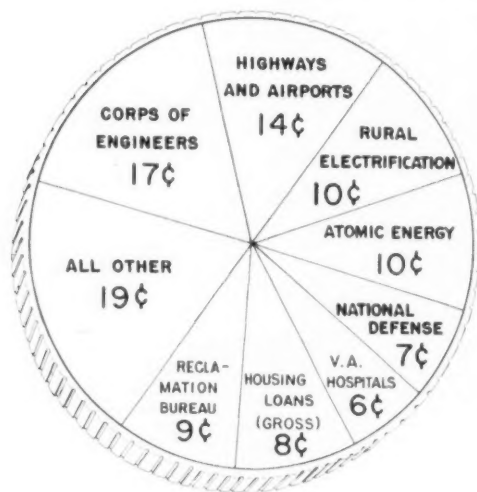


To Speak at 31st A.G.C. Convention (Story on page 52)

Dr. Edwin G. Nourse, Washington, left, above, former chairman of the President's Council of Economic Advisers, and W. Walter Williams, chairman of the Committee for Economic Development, will outline economic trends at the 31st annual convention of The Associated General Contractors of America in San Francisco, February 27-March 2. Mr. Williams is president of Continental, Inc., Seattle investment firm.

Budget Carries \$3.9 Billion For Construction In Fiscal '51

- Increase of 19 Per Cent Over This Year



How the Federal Construction Dollar Is Divided

1951 NATIONAL CONSTRUCTION BUDGET

Construction Primarily Building

| Agency or Function | Expenditures | |
|---|----------------------|----------------------|
| | Fiscal 1950 Estimate | Fiscal 1951 Estimate |
| Veterans' Administration, hospitals, domiciliary facilities | 882,000,000 | 813,700,000 |
| Army Corps of Engineers, hospitals, domiciliary facilities | 141,000,000 | 97,000,000 |
| General Services Administration | | |
| Veterans' educational facilities | 830,000 | 209,800 |
| Public Buildings Service | 700,000 | 987,137 |
| Hospital Center, District of Columbia | 131,746 | 400,000 |
| Buildings and facilities, Cincinnati, Ohio | 130,012 | 1,410,000 |
| Trans. from St. Elizabeth's Hospital | 3,016,328 | 2,953,204 |
| Arctic Health Institute | | 973,000 |
| Research facilities | 10,294,000 | 21,910,000 |
| Howard University | 1,738,444 | 7,420,000 |
| Geophysical Institute, Alaska | 750,000 | 125,763 |
| Federal Courts Building, D. C. | 4,300,000 | 7,150,000 |
| Renovation, Executive Mansion | 975,000 | 3,925,000 |

Note: Expenditures include liquidation of contract authorizations.

» ANALYSIS of the Administration's budget submitted to Congress last month discloses almost four billion dollars recommended for expenditure on civil public works and national defense construction during the fiscal year 1951, beginning next July 1.

The \$3,888,781,979 figure is more than 19 per cent higher than the estimated \$3,254,226,011 that will be spent on federal construction during the current fiscal year ending June 30, 1950.

The budget recommended the following expenditures during fiscal 1951 (including appropriations to liquidate contract authorizations):

1. For civil public works, \$3,587,954,979, more than 23 per cent higher than the \$2,909,155,011 expected to be spent on these programs during the current fiscal year.

2. For national defense construction, \$300,827,000, a decrease from the \$345,071,000 scheduled for this fiscal year.

(The federal construction expenditures recommended, as listed in the table beginning on this page, include a number of items which the federal budget either no longer lists as "public works", or which are financed with funds other than "appropriations". Principal among these are: \$426,000,000 for Rural Electrification Administration programs, authorized to be spent from public debt receipts; and \$11,391,158 for flood control operations by the Department of Agriculture. The budget omitted them from the tables "because they aid primarily private rather than public construction".)

Impact Greater than Funds

The budget stated: "The impact of federal construction upon the construction industry as a whole is measured only in part by the total federal outlays.

"Since the loan and grant programs for highway, hospital, education, airport, and public housing construction are matched or supplemented by state and local funds, the federal contribution has a greater effect than the expenditures alone indicate. The magnitude of these federally aided construction activities is in the order of \$2 billion for 1951.

"Finally, the large volume of government guarantees and insurance of private loans and of government purchases of such loans makes a major contribution to private residential construction."

As was the case last year, the budget provides largely for continuing progress on projects or programs already under way to the extent of about 95 per cent of the total expenditures.

Seven Major Programs

The bulk of the expenditures are slated for seven major programs:

1. Veterans' Administration hospitals, including work supervised by the Corps of Engineers, \$254 million. By June 30, 1951, the program is expected to be 75 per cent completed, with 48 projects finished.

2. Flood control, navigation and power projects of the Corps of Engineers, estimated at \$695.4 million. The \$534 million for flood control "will probably continue at that level in 1952 despite the fact that no new starts are contemplated in 1951".

3. Irrigation and power projects of the Bureau of Reclamation, \$354.4 million, also with no new projects recommended for next fiscal year.

4. Facilities for the expanding program of the Atomic Energy Commission, \$400.1 million. Production facilities will expand, but housing and community construction will decrease sharply at Oak Ridge, Tennessee; Richland, Washington; and Los Alamos, New Mexico.

5. Bureau of Public Roads grants to states for highway construction, \$493.3 million. The President proposed new legislation to provide an annual federal-aid authorization for the next two years of \$500 million, and recommended increased emphasis on the interstate highway system "within the recommended federal-aid authorization of \$500 million per year".

6. Rural Electrification Administration, \$411 million for its electrification program, and \$15 million to begin construction of rural telephone facilities.

7. Loans by the Housing and Home Finance Agency for public housing, estimated at \$346.9 million, with repayments during the year expected to total \$247.5 million. This agency also is supervising the multi-million dollar slum clearance program, which is not included as public works. However, reconstruction programs that will be generated by this program—both private and public—are expected to swell the construction volume in the future.

New Programs

The President cited to Congress middle-income housing as one of the

Construction Primarily Building—Continued

| Agency or Function | Expenditures | |
|---|-------------------------|-------------------------|
| | Fiscal 1950 Estimate | Fiscal 1951 Estimate |
| General Services Administration—Cont'd. | | |
| Renovation, etc., federal buildings outside D. C. | 5,000,000 | 12,000,000 |
| General Accounting Office Building | 8,989,542 | 15,028,479 |
| Federal Office Building, Nashville, Tennessee | 2,750,000 | 2,845,000 |
| Sites and planning, buildings outside D. C. | 5,444,254 | 29,500,000 |
| Miscellaneous general government work | 2,844,379 | 3,225,768 |
| Federal Security Agency | | |
| Public Health Service, federal-aid hospitals | 3,374,561 | 135,993,712 |
| Public Health Service, Arctic Health Institute | | |
| Research facilities | | |
| Office of Education, school construction (proposed legislation)* | | 20,000,000 |
| Howard University | 793,278 | 200,829 |
| St. Elizabeth's Hospital | | |
| Department of Justice | | |
| Federal Prison System | 649,444 | 1,019,000 |
| Federal Prison Industries, Inc. | 350,000 | 200,000 |
| Housing and Home Finance Agency | | |
| Alaska housing, loans, gross | 3,375,000 | 8,888,000 |
| Repayments | 128,000 | 16,169,100 |
| Public Housing Administration | | |
| Veterans' housing program | 3,921,294 | |
| Housing Act program, loans, gross | 212,518,800 | 338,050,000 |
| Repayments | 124,968,545 | 174,155,225 |
| Department of the Interior | | |
| Bureau of Indian Affairs, public schools | 121,500 | 64,000 |
| Bureau of Mines, research laboratories | 970,000 | 32,000 |
| Department of Commerce, Bureau of Standards | 234,883 | 678,691 |
| Coast and Geodetic Survey | | 85,000 |
| Department of Agriculture, research facilities | 500,000 | 3,500,000 |
| Loans, farm housing | | 10,000,000 |
| Atomic Energy Commission, production, research and townsite facilities* | 297,058,000 | 400,000,000 |
| Architect of the Capitol | | |
| Senate and House roofs and chambers | 3,824,569 | 850,000 |
| Capitol power plant improvements | 950,000 | 10,000,000 |
| Site, etc., additional Senate Office Building | 194,292 | |
| Panama Canal, housing, anticipated supplemental | | 3,500,000 |
| Total for construction primarily building, net | 716,591,391 | 1,081,697,678 |

Construction Primarily Highway—Airport

| | | |
|--|-------------|-------------|
| Department of Commerce, Bureau of Public Roads | | |
| Federal-aid highway system | 88,000,000 | 83,583,417 |
| Federal-aid secondary or feeder roads | 4,000,000 | 2,097,277 |
| Elimination of grade crossings | 10,000,000 | 8,793,203 |
| Federal-aid postwar construction* | 109,915,000 | 440,630,559 |
| Forest highways, Alaska (proposed legislation) | | 2,888,000 |
| Forest highways | 28,294,026 | 24,900,000 |
| Alaska roads, bridges and trails | 4,000,000 | |
| Testing and research laboratory | 1,000,000 | |
| Working funds and other | 3,954,139 | 3,110,148 |
| All other grants | 10,748,867 | 7,237,892 |
| Flight strips (national defense) | 200,000 | 69,457 |
| Civil Aeronautics Administration | | |
| Air-Navigation facilities | 23,100,000 | 46,607,000 |
| Federal-aid airport program* | 47,500,000 | 51,400,000 |
| Development of landing areas | 173,866 | 62,543 |
| Washington National Airport | 303,171 | 1,490,000 |
| Public airports, Territory of Alaska | 8,141,172 | 3,200,000 |
| Proposed legislation, anticipated supplemental | 1,000,000 | 3,500,000 |

† Deduct.

* Includes only that part of appropriation used for construction.

Highway-Airport Construction—Continued

| Agency or Function | Expenditures | |
|--|-------------------------|-------------------------|
| | Fiscal 1950 Estimate | Fiscal 1951 Estimate |
| Department of the Interior | | |
| National Park Service | | |
| Arlington Memorial Bridge | 68,500 | 26,571 |
| Construction | | 17,575,000 |
| Parkways* | 3,400,000 | |
| Roads and trails* | 3,500,000 | |
| Physical improvements* | 3,500,000 | |
| Mississippi River Parkway | 100,000 | |
| Roads, trails and physical improvements* | 1,200,000 | |
| Baltimore-Washington Parkway (Proposed) | | 2,000,000 |
| Government in the Territories, Alaska roads* | 21,364,602 | 20,210,000 |
| Department of Agriculture, Forest Service | | |
| Forest development, roads and trails* | 2,600,000 | 4,000,000 |
| Roads and trails for states, national forests fund (permanent indefinite, special account) | 2,695,448 | 3,000,000 |
| Total, for construction primarily highway and airport | 600,758,791 | 616,381,067 |

Construction Primarily Heavy—Railroad

| | | |
|--|-------------|-------------|
| General Services Administration, grants for water pollution control plan preparation | \$200,000 | \$600,000 |
| Department of Agriculture | | |
| Water conservation and utilization | 620,000 | 897,900 |
| Water conservation and utilization (reimbursable) | 47,000 | 102,000 |
| Flood control | 10,704,286 | 11,391,158 |
| Development of water facilities | 114,345 | 45,577 |
| Tennessee Valley Authority* | 78,944,000 | 117,863,000 |
| Department of the Army, Corps of Engineers | | |
| Flood control, general* | 388,000,000 | 466,500,000 |
| Flood control, Mississippi River & tributaries* | 52,000,000 | 58,000,000 |
| Flood control, Sacramento River, California | 3,300,000 | 3,300,000 |
| Flood control, general, emergency funds | 13,600,000 | 6,000,000 |
| Flood control, all other | 2,020,478 | 515,000 |
| River and harbor works* | 124,300,000 | 155,100,000 |
| Alterations of bridges over navigable waters | 1,200,000 | 2,000,000 |
| St. Lawrence Seaway and power project (proposed) | | 4,000,000 |
| Gulfport, Mississippi, harbor and channel | 496,000 | |
| Department of the Interior | | |
| Southwestern Power Administration* | 4,992,093 | 9,300,000 |
| Emergency flood protection and repair | 275,000 | |
| Bonneville Power Administration* | 32,300,000 | 39,700,000 |
| Bureau of Land Management | | 600,000 |
| Bureau of Indian Affairs | 17,051,000 | 25,081,492 |
| Geological Survey, rivers and harbors and flood control (transfers) | 1,109,737 | 783,000 |
| National Park Service, transfers | 3,105 | |
| Fish and Wildlife Service | | |
| Rivers and harbors and flood control (transfer) | 1,607,600 | 3,101,517 |
| Construction | 2,017,763 | 1,600,000 |
| Bureau of Reclamation | | |
| Construction and Rehabilitation | | 354,000,000 |
| Reclamation fund, special fund* | 26,000,000 | |
| General fund, construction | 280,262,357 | 4,100,000 |
| Colorado River Dam fund, Boulder Canyon | 750,000 | |
| Fort Peck project (permanent, indefinite, special account) | 374,000 | 436,000 |
| Bureau of Mines, synthetic liquid fuels* | 1,800,000 | |
| Construction | | 1,500,000 |
| Government in the Territories, rehabilitation of Alaska Railroad* | 16,500,000 | 27,000,000 |

* Deduct

* Includes only that part of appropriation used for construction.

very few "limited new domestic programs" he was recommending. The public works budget, he stated, "reflects almost entirely the minimum requirements of projects and programs now under way".

Included in the budget recommendations was a \$20,000,000 expenditure on emergency school construction as part of proposed legislation.

An appropriation for the proposed St. Lawrence seaway and power project was recommended. The overall project probably would cost \$500 million.

Several new power generation and transmission projects were recommended, particularly in the Tennessee Valley.

Commitments for the Future

The major portion of about \$12 billion required after fiscal year 1951 to complete civil public works projects in the current program (excluding REA) is expected to be expended in fiscal years 1952 and 1953, according to the budget timetable. However, expenditures on some large projects will continue thereafter for a number of years.

Largest among the future programs to continue are those of the Corps of Engineers and Bureau of Reclamation.

Agency reports indicate that, on the basis of current prices, about \$10.8 billion of construction work already authorized by Congress is available for undertaking after next fiscal year, about two-thirds of which is in the programs of the Corps of Engineers and Bureau of Reclamation. Some of these programs will extend over 10 to 20 years.

In addition, federal agencies report about \$20 billion of proposed construction which has not yet been authorized by Congress. Here again, multiple-purpose irrigation, power, river and harbor and flood control work looms large.

Planned Projects

The aggregate of planned direct federal projects now ready for construction is \$1.8 billion, with another \$2.6 billion in the process of preparation. In addition, states, local authorities, and cooperatives receiving federal loans and grants have an estimated \$3.5 billion of projects already planned, and \$2.4 billion in preparation.

The advance planning loan program will further enlarge the national shelf of planned work, but "there is still

lacking an organized and flexible reserve to strengthen the construction industry, should the need arise", the budget stated.

Construction as Investment

The overall federal budget expenditure is estimated at \$12.4 billion, compared with \$13.3 billion estimated for the current fiscal year.

In his message transmitting the budget to Congress, President Truman referred to a new investment expenditure analysis contained in the budget for the first time, in which public works plays a prominent part.

"Many expenditures represent the acquisition of assets which are recoverable or will give continuing returns in future years, and which in normal business accounting would not usually be considered as current expense," the President said.

"It is estimated that in the 1951 budget such expenditures, excluding military public works and equipment, amount to about 5.6 billion dollars, of which about 4 billion dollars is anticipated to be in the recoverable category. In the case of the Federal Government, in contrast to private business, these investment expenditures can not properly be financed differently from other items in the budget. But their size and nature are important in evaluating the strength of our fiscal position."

\$878 Million Recoverable

The experimental classification in the budget listed \$878 million of public works as wholly or largely recoverable, out of \$1,662 million to be spent for public works assets next fiscal year. Only those where at least 50 per cent of the investment is expected to be repaid are listed as wholly or largely recoverable.

The budget pointed out: "Many expenditures of the Federal Government, such as grants to states for highways, are not expected to be specifically recovered by future repayments to the Treasury. Rather, they are intended to build up the productivity of the economy. Indirectly, of course, federal tax revenues will expand as various investment and other developmental expenditures have the effect of increasing the wealth and income of the nation."

Heavy-Railroad—Continued

| Agency or Function | Expenditures | |
|---|-------------------------|-------------------------|
| | Fiscal 1950 Estimate | Fiscal 1951 Estimate |
| Department of State | | |
| International Boundary and Water Commission, United States and Mexico | 5,235,798 | 10,798,000 |
| Salmon runs, Fraser River system | 193,702 | 46,800 |
| Total, for construction primarily heavy-railroad, net | 1,066,016,267 | 1,300,258,444 |

Miscellaneous Public Works

| | | |
|---|--------------------|--------------------|
| Reconstruction Finance Corp., loans to public bodies, gross | \$20,000,000 | \$50,000,000 |
| Repayments | 11,650,000 | 11,800,000 |
| Federal Security Agency, transfer | 34,149 | |
| General Services Administration | | |
| Virgin Islands public works | 2,800,000 | 1,181,659 |
| Community facilities, defense public works | 800,000 | 659,000 |
| Alaska public works | 980,000 | 11,820,000 |
| Advance planning, nonfederal public works | 14,150,000 | 35,700,000 |
| Liquidation of Public Works Administration | 408,000 | 2,000 |
| Department of State, construction* | 700,000 | 300,000 |
| Department of Agriculture | | |
| Commodity Credit Corp., storage facilities* | 90,000,000 | 15,000,000 |
| Rural Electrification Administration | | |
| Loans to states, REA program | 354,000,000 | 411,000,000 |
| Loans, rural telephone program | | 15,000,000 |
| Department of the Army | | |
| Signal Corps, Alaska communications | | 1,000,000 |
| Panama Canal, memorial to Gen. Goethals | | 156,509 |
| Quartermaster Corps, cemeteries* | | 875,000 |
| American Battle Monuments Commission | 3,826,000 | 8,000,000 |
| Panama Canal improvements and facilities* | 3,057,000 | 3,703,542 |
| Panama Railroad Co., expansion | 208,000 | 600,000 |
| Treasury Department, Coast Guard construction* | 6,472,792 | 7,064,100 |
| National Bureau of Standards, laboratory | 1,221 | |
| Total, Miscellaneous public works, net | 495,738,062 | 559,617,790 |

National Defense Public Works

| | | |
|--|----------------------|----------------------|
| Air Force Defense | | |
| Acquisition and construction of real property | 825,000,000 | 845,000,000 |
| Air National Guard* | 3,000,000 | 7,000,000 |
| Army Defense | | |
| Corps of Engineers | | |
| Engineer Service, Army* | 51,118,000 | 1,327,000 |
| Military construction, Army | 102,000,000 | 65,000,000 |
| Working fund* | 3,700,000 | 11,000,000 |
| Army National Guard* | 25,750,000 | 9,300,000 |
| Organized Reserves* | 2,000,000 | 13,000,000 |
| Naval Defense, Bureau of Yards and Docks | | |
| New public works | 59,418,000 | 38,000,000 |
| Public works | 60,000,000 | 33,700,000 |
| Department of Defense military functions, largely public works, tentatively estimated under proposed legislation | | 70,000,000 |
| National Advisory Committee for Aeronautics, construction | 15,085,000 | 19,500,000 |
| Total, national defense public works, net | 345,071,000 | 300,827,000 |
| Total, all federal construction, net | 3,245,226,011 | 3,888,781,979 |

† Deduct

* Includes only that part of appropriation used for construction.

Heating Contractors Organize Drive for Separate Contracts

- Group Urges Campaign on Public Works Letting
- Wants Both State and Federal Legislation

» THE HEATING, Piping and Air Conditioning Contractors National Association last month called on all of its members to work for legislation requiring separation of contracts on all public works.

See Editorial

—Page 21

The association's message appeared in its *Official Bulletin*. It follows in full, with the exception of quotations from specific state codes:

"Public construction, whether national, state or local, bulks large in the volume of the industry. Whether it is let on the auction block under the hammer of the general contractor or given at the heating, piping and air conditioning contractor's original bid will undoubtedly mean the difference between our members' ability to operate profitably or being submerged in the business worries that always accompany unprofitable operations.

"National Policy

"This national association has always stood firmly for the letting of contracts for the three mechanical trades as separate contracts. At the last meeting of your board of directors, the members of the board again expressed themselves as believing that the national association should work for such separation of contracts on all public work.

"If the auctioning of jobs by the general contractor resulted in savings to the public, we could take a different view of this situation.

"Since, however, the auction takes place after the general contractor has submitted his price and results only in additional profit to the general contractor, the contractor in the mechanical trades can see no reason why he should be squeezed to furnish additional profit to the general contractor.

"Promote State Legislation

"Your board of directors urges every local association and every member to begin now promoting legislation in your state looking toward the estab-

lishment of a mandatory system of taking separate bids and letting separate contracts for the three mechanical trades, the heating, ventilating and air conditioning; the plumbing, and the electrical work.

"Five states already have such laws and they are functioning successfully. They are New Jersey, New York, North Carolina, Ohio and Pennsylvania. Copies of the law are given here so that they can be studied and used as an aid in drafting legislation for your state. (*The Official Bulletin* then quoted from these laws.)

"What These Laws Accomplish

"These laws give the heating, piping and air conditioning contractor freedom to make his own price and bid it direct to the public authority taking the bids. He is not subjected to a subsequent auction at the hands of the general contractor. Also, he is bidding to a public authority with the credit of that public authority available to pay the bill without substituting the credit of a private general contracting concern.

"Another attractive feature is that the public authority doesn't ornament the final settlement with fanciful back charges.

"The Next Step

"As a background for successful action in obtaining federal legislation, more states should be moved into the column of those requiring separate contracts for the mechanical trades on public work. The next step is for each local association, in a state not having such a way, to appoint a legislative committee or a Committee on Separation of Contracts.

"This committee should seek and secure the active cooperation of local associations of the National Association of Master Plumbers and of the National Electrical Contractors Association.

"Then the representatives of these three associations can study existing laws and decide what they would like to see in the laws of their own state.

"The next step, of course, is to seek an assemblyman or state senator who would sponsor such a bill and guide it through the state legislature.

"Public work is coming out—schools, hospitals, etc., and now is the time to put on a drive for the separation of contracts for mechanical work so the three trades can benefit through dealing direct with the public letting authorities rather than taking the work after the auction held in the office of the successful general contractors."

Reclamation Reports

Bureau of Reclamation expenditures for force account work totaled \$5,741,000 in fiscal 1949, or 2.6 per cent of the year's total of \$217,000,000 worth of construction. Interior Secretary Oscar Chapman announced late last month.

Mr. Chapman said that the percentage figure was the smallest for this type of work by the bureau in seven years and was approximately one half the 5.4 ratio and \$10,000,000 expenditure for force account work in 1948.

A Reclamation Bureau press release said that the force account method was used on work which did not lend itself to the contract method and when it was impossible to obtain acceptable bids or assurances of adequate performance under private contract.

The release added:

"Statistical records of the bureau show that, over the 20-year period from 1928 to 1948, except for two years during the war for which records are not available, the ratio of force account work to the total Reclamation construction program was 4.5 per cent. Immediately following the end of World War II, when labor and supply conditions were unsettled, the ratio of force account work was higher than normal. The dollar volume of construction was comparatively small in those years as the Reclamation program was gradually resumed."

Recent appropriation measures carrying funds for the Bureau of Reclamation have carried specific limitations upon the amount of work which the bureau may do by force account. (Page 34, November 1949 *CONSTRUCTOR*.)

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TRUCKS

CHICAGO

» THE LONG-SMOULDERING feud between Robert N. Denham, general counsel of the National Labor Relations Board, and the members of the board broke into the open last month—and board handling of construction cases made up a large part of Mr. Denham's complaint.

Denham Offers Advice, Praises Jurisdictional Disputes Board —Page 36

The general counsel, in a speech to the Building Trades Employers' Association of New York City which also embraced certain amplifications of his recent statement on union security problems in the construction industry (Page 25, January *Constructor*), was bluntly critical of the board's philosophy and its legal findings.

Mr. Denham spoke of "decisions (which) represent some substantial repudiations of the interpretations and applications of the law made by the General Counsel in the exercise of his prosecution functions." Most of them, he added, serve markedly to restrict the application of the Taft-Hartley Act as it deals with unfair practices by labor organizations. The board, he intimated, had too much of a Wagner Act frame of mind.

Labor Hits Back

Half a dozen national union headquarters rushed into print the day after the speech was delivered in New York to demand that President Truman force Mr. Denham's resignation. There was no indication that Mr. Truman would try to act or that Mr. Denham had any intention of resigning.

"There have been many decisions by the Board in recent months to which I have been unable to subscribe as being consonant with the broad purposes and intent of the law," declared Mr. Denham. "But it is entirely possible that, in the present political climate, these decisions may represent a correct line of thought and mine may be insupportable."

"In any event, only the courts can effectively contradict the Board's decisions, and, up to the present writing, not many of the decisions have come before the courts for review. It is interesting to note, however, how many times the courts have apparently been held by the Board to be in error in issuing injunctions at the behest of the General Counsel, in cases which

Denham Attacks NLRB, Cites Construction Industry Decisions

• General Counsel Sees Board Favoring Unions Now

the Board has later dismissed, either on interpretation of the law or just because it didn't care to decide them."

The construction industry must be much more concerned, Mr. Denham said, in labor matters which concern the industry as such rather than in the general problems of those who administer the law. Then he cited four specific cases. Two of these were the Ryan case in Evansville, Indiana (Page 53, September 1949 *Constructor*), and an electrical contracting case in Denver, Colorado. The other two were New York trucking cases which went directly to construction industry problems.

Of one of these New York cases, Mr. Denham said in part:

"You may find pickets on your job any time a trucking concern that is in the bad graces of a union attempts to make a delivery to your operation. Oh, no—they won't be picketing you—and they may not be picketing the merchandise that is being delivered, that is, not technically. They will just be picketing the trucking concern's truck, because, for all purposes, wherever the trucking company's truck is found, that is where the trucking company's place of business is."

It's "Primary" Picketing

"And so, such picketing is primary—not secondary and entirely legitimate, even though supplies and the place of delivery are not involved. But I doubt seriously that many of your employees, if you are a union operator, would go through the picket line to receive the supplies that some secondary supplier has consigned to you."

"I don't know whether the case is going to get into court. If it does, it will have to be at the instance of the employing trucker, and, if it doesn't, that's what seems to be the law if the Board decisions are unchallenged, or sustained by the reviewing court."

In his discussion of the electrical contracting case in Denver, Mr. Denham charged that the board had reversed its position on "unfair lists" as that position had been cited in the

widely publicized Osterink case in Michigan. He added that, since there was a relatively small contractor involved, he doubted whether the case would ever get to the Supreme Court.

Second New York Case

Of the second New York case, he said in part:

"This one really deals directly with the trucking industry, but the principles can easily involve anyone in your industry. Incidentally, I'm told this one will be taken to the courts by the trucking industry for review."

"Secondary boycotts taking the form of refusals to handle 'hot cargo' or 'struck goods' are forbidden by the Taft-Hartley Act. For some years, it has been the basic law that one may not contract away his protection against such illegal conduct, and so neither the General Counsel nor the United States District Court hesitated for long in moving to prevent such a secondary boycott when it arose in one of the upstate trucking situations."

"But it seems that the General Counsel and the court again were in error, for, just a few days ago, the Board found that, if an employer wants to contract away to the union his protection from secondary boycott action arising from a refusal to handle 'hot cargo' or 'struck goods,' he can do so. In fact, if, after such a contract, he attempts to handle so-called 'hot cargo' or 'struck goods,' as I read this Board decision, he can be penalized in favor of the union for breach of contract."

In a bitter summation of this portion of his speech, Mr. Denham observed:

"The Office of the General Counsel is not infallible, but we are called upon to make many of the initial determinations as to where and how this law applies. We have our yardsticks and our rules, and believe me, none of them are written in invisible ink, to come out only when the heat is applied. We think we know what it's all about, but here of late we, and the courts, have been reversed so many times by the Board that I'm beginning to wonder."

Excerpts From Denham Speech Text

• NLRB Legal Chief Praises "Dunlop" Jurisdictional Board

The text of the speech which Robert N. Denham, general counsel to the National Labor Relations Board, delivered in New York last month to the Building Trades Employers Association of New York City dealt principally with two things—Mr. Denham's differences with the board as it is now composed (Story on Page 35) and an elaboration of what he had said in December when the NLRB considered the construction industry's problems in operating under the Taft-Hartley Act. (Pages 25 and 26, January Constructor.)

Highlights of what Mr. Denham said about the policy announced in December follow from his text:

"A number of contractors and some labor organizations have asked me to define with greater particularity just what this policy means and how it will apply. It is difficult to enlarge upon this statement. The policy is a narrow one at best.

Don't Ask Clearances

"Some contractors have asked me to tell them what type of situations within the industry are 'administratively impracticable' for the conduct of elections, and which are 'sufficiently stable' to permit the conduct of elections. These do not lend themselves to enlargement nor does enlargement seem necessary if careful consideration is given to the situation as a whole.

"I have been asked whether the contractors or the unions must submit to the Office of the General Counsel a general statement of their operating conditions in each instance and obtain a clearance from the General Counsel certifying that their situation is one in which an election is not practicable.

"The answer to that is definitely 'No'.

"For, as I have said, the statement, read as a whole from beginning to end, and with all parts of it being taken together, is sufficiently clear so that any person attempting to look at it from a broad point of view will come up with a clear answer.

"There is just one thing I want to warn you: Don't try to cut corners.

"The General Counsel has made this statement of policy because he believes it is the only administratively honest thing to do under the circumstances,

and I am thoroughly convinced that no one who reads it from its over-all aspect can possibly be misled by it.

"I do want to emphasize, however, the last sentence, and I want to repeat it to make sure that it is clearly understood. It reads as follows: 'Nor does it apply to that type of conduct with respect to union security which is outside the allowable area defined in the proviso to Section 8 (a) (3) of the Act and which would be within the prohibition of Section 8 (a) (3) and 8 (b) (2) notwithstanding actual union security and authorization.'

"We are doing this to make available to the building and construction industry all the benefits of maximum permissible union security provided within the law. We are recognizing the general over-all organizational solidarity of the crafts in those parts of the industry where the contractors are in the habit, as they have been in the past, of dealing with craft unions under over-all contracts in the traditional manner."

Mr. Denham then turned to the prospects for the construction industry and to the problems which it will continue to face. Part of what he had to say follows:

"As I look forward from this vantage point in 1950, it looks to me that the construction industry can justly expect to continue its upswing curve.

Problems Will Continue

"As construction continues, the problems of the construction operator will, of course, continue to exist. It is no new story for me to tell you that the two outstanding labor problems that have bedeviled the industry since time immemorial are the secondary boycott and the jurisdictional dispute. . . ."

The NLRB general counsel then again referred to the confusion caused by some of the decisions of the board and by conflicting court opinions. Possibly, he said, before 1950 is over, there will be some constructive decisions which will clarify some of the present uncertainties.

Mr. Denham said that one of the most difficult problems presented to the NLRB by the Taft-Hartley Act was in the entirely new provision of the law which placed upon the agency the responsibility for the determination of

jurisdictional disputes arising from the assignment of work to one craft or another. Then, he added:

"None of us pretended to be versed in its problems or techniques. But when it was suggested to the representatives of the crafts that make up the Building and Construction Trades Department of the American Federation of Labor, and to some of the associations of general and special contractors, that surely they jointly could find a way to handle these matters on their own accord without taking them to the board, they struggled, and they finally came up with a program for what is now popularly known as the 'Dunlop Board', or, more correctly, the 'National Joint Board for the Settlement of Jurisdictional Disputes'."

Sees T-H Act Justified

"The Dunlop Board has almost entirely relieved our agency of the problem of jurisdictional disputes in the construction industry. In fact, we have yet to hold our first hearing between two unions that are members of the Building and Construction Trades Department of the American Federation of Labor, notwithstanding that hundreds of such disputes have arisen.

"If the Taft-Hartley Act has done nothing else in the two and one-half years of its existence, it has justified its existence by the results that have been accomplished by that (National Joint) Board, for which it was at least partly responsible.

"There is no way of computing the figures, but I have been told that, since the Dunlop Board began to function in May of 1948, the loss to builders and to the employees throughout the nation, arising from work stoppages based on jurisdictional disputes in the construction industry, has been reduced to less than 10 per cent of what it was prior to the day the Taft-Hartley Act went into effect.

"I have no idea of what it amounts to in dollars and days saved, but at least it's worth doing a little bragging about.

"I believe the state of the construction industry . . . is good. And, as long as the contractors and suppliers in that industry, and the labor in it, continue their understanding respect for each other, and for the law of the land that must lay down many of the playing rules, it should keep on being good."

» THE AMENDED Wage and Hour Act (Public Law 393, 81st Congress; Page 31, November 1949 Construction) went into effect January 25, making the following principal changes from the 1938 law:

1. The minimum wage was increased from 40 to 75 cents an hour.

2. The "regular rate," upon which overtime is computed, was clearly defined, thus eliminating overtime-on-overtime.

3. Coverage of the law was changed by a redefinition of what is meant by the term "employees engaged in the production of goods for commerce." The act now says that the term includes only those employees in occupations "closely related" or "directly essential" to the production of goods for commerce.

4. The Wage and Hour Administrator may sue the employer for overtime due the employees.

5. Child labor is prohibited both in commerce and the production of goods for commerce.

The administrator already has issued a number of amendments to existing regulations and of interpretations under the new act, and many more are expected. Among those already issued are:

New Wage-Hour Law Becomes Effective

• Principal Changes, New Rules Are Enumerated

1. An amendment to the record-keeping regulations requiring the employer of employees covered by the act to post a prescribed notice in conspicuous places in every "establishment" where the employees may readily observe it on their way to and from work. These posters are being circulated by the regional Wage and Hour offices. (Labor Department release D-232, dated December 14, 1949.)

2. Amended Apprenticeship Regulations which permit the employer to continue to pay an apprentice less than 75 cents an hour after January 25, so long as the apprentice is employed under the terms of an apprenticeship agreement approved prior to that date. In the absence of such approval, a special certificate of the Wage and Hour administrator is necessary before a sub-minimum wage rate may be paid. (D-231, December 15, 1949.)

3. Child labor regulations, prohibiting for the first time the employment of children under 16 in construction

and certain other named industries. This regulation permits the employment of children 14 and 15 in office or sales work where there is no on-site construction. It does not permit them to operate motor vehicles. (D-237, December 25, 1949.)

4. Revised regulations on the exemption of "white collar" workers. The exemption requirements for employees in administrative, executive and professional positions have been increased both with regard to the amount of salary required and other factors. (Regulations, Part 541.)

5. The Wage and Hour administrator says that the 75-cent minimum requirement is satisfied where employees who work no more than 40 hours a week are paid a monthly salary of \$130 or a semi-monthly salary of \$65.

Late in January, there was nothing new on coverage generally or on the specific problem of guards and watchmen, although an announcement on coverage was expected shortly.

Labor Decisions Affecting Construction

The Grauman Co. "Unfair Listing" Case*—In this case the National Labor Relations Board reversed itself on the use of "unfair lists" by unions in a ruling which held that the mere placing of an employer's name on an unfair list was not an unlawful secondary boycott.

The trial examiner had ruled that the Denver Building and Construction Trades Council, the International Brotherhood of Electrical Workers and the Plumbers' Union were guilty of a secondary boycott in placing the Grauman Co., a non-union manufacturer, on an unfair list and in striking a soda fountain installation job at the Quigley Drug Store in Denver where products of the Grauman Co. were being installed.

The Schneider Case**—The NLRB recently held that a strike to cause a public school board to cancel a contract with a building contractor is beyond the scope of the Taft-Hartley Act ban on secondary boycotts.

The Owensboro (Kentucky) Board of Education awarded a contract for

electrical work on a \$220,000 school job being built by the Al J. Schneider Co., A.G.C., of Shively, Kentucky, to the Abrams Co. The Schneider company brought charges against the I.B.E.W., alleging that the union induced the employees of the Schneider company to strike with the object of forcing the board of education to cancel its contract with the Abrams Co.

The NLRB held that the board of education was a "political subdivision" of the state and therefore not an employer within the meaning of the Taft-Hartley Act.

The Conway's Express "Hot Cargo" Case***—In this case, the board held that the Taft-Hartley Act ban on secondary boycotts does not prohibit an employer and a union from agreeing that employers may refuse to handle "hot cargo" or "struck work" produced by a non-union employer.

Three separate employers had consented in advance to boycott Conway's Express, a trucking concern; and, because of this consent, the board

felt that there could legally be no strike or refusal to work. The board said:

"Section 8(b)(1)(A) of the Act prohibits labor organizations from forcing or requiring the participation of neutral employers in secondary boycotts by the use of certain forms of employer pressure, namely, strikes or work stoppages (either actually engaged in, or 'induced' or 'encouraged' by the union). This section does not prescribe other means by which unions may induce employers to aid them in effectuating secondary boycotts; much less does it prohibit employers from refusing to deal with other persons, whether because they desire to assist a labor organization in the protection of its working standards, or for any other reason."

*In the matter of Denver Building and Construction Trades Council, I.B.E.W. Local 68, Plumbers Local 3, and the Grauman Co. Case No. 30,004.

In the matter of I.B.E.W. Local 16 and the Al J. Schneider Co., Inc. Case No. 9,000-21. *In the matter of Teamsters Local 291 and Henry V. Rahouni, doing business as Conway's Express.

Detroit Graduates Record 582 Apprentices

• More Than 1,250 Attend Testimonial Banquet

The fourth annual apprentice graduation and testimonial banquet in Detroit recently saw 582 apprentices obtain their diplomas—the largest graduating class in the history of the Detroit Building Trades Apprentice Council. More than 1,250 guests attended.

Notables from industry, labor, education, federal and civic organizations turned out for the occasion, which featured, in addition to the speakers, a dinner, floor show, and dancing at the Club Fantasia.

Detroit's apprenticeship program, begun in 1924, has become one of the largest and most successful in the country. The council, which is composed of several joint employer-union groups, includes the Detroit Chapter of The Associated General Contractors of America.

Ralph A. MacMullan, secretary of the council, and of the Detroit Chapter, A.G.C., described the city's big program and praised recent changes and improvements in study programs. He expressed the belief that prospects for apprentice training in the future are good.

Paul M. Geary, executive vice presi-

dent of the National Electrical Contractors' Association, explained why training on a national scale is needed. He pointed out the necessity for standardization of training so that an apprentice graduate can work competently in any part of the country.

The newly qualified mechanics were told not to shrink from their responsibilities to their employers or their unions, by Frank X. Martel, president of the Detroit and Wayne County Federation of Labor, A.F.L.

Other speakers included Henry F. Felt, president of the Builders' Association of Metropolitan Detroit; Andrew McFarlane and Marion Macioce, president and vice president, respectively, of the Detroit Building and Construction Trades Council; and Alex S. Piepskowski, who responded on behalf of the graduates.

Chairman of the event was Finlay C. Allan, chairman of the council; and toastmaster was the Hon. Ira W. Jayne, judge of the Third Judicial Circuit of Michigan.

Program and banquet arrangements were supervised by George W. Combs, administrative assistant of the Detroit Chapter, A.G.C.

Apprentices Build School

The building trades apprentices of San Antonio, Texas, and their sponsoring organizations last fall constructed with the cooperation of the San Antonio Independent School District, a four-classroom schoolhouse for their training and that of generations of apprentices who will follow them.

John C. Worcester, A.G.C., who is president of the San Antonio Builders' Exchange, was chairman of the joint committee responsible for the erection of the structure. Paul Adams, executive secretary of the San Antonio Chapter, A.G.C., was president of the school district board when the project was begun.

The sponsoring organizations included the chapter, the builders' exchange, the Construction Employers Council of San Antonio, and the A.F.L. Building Trades Council of San Antonio. Manufacturers and suppliers donated 60 per cent of the materials and sold the remaining 40 per cent at cost. The school board furnished the building site, at the Luther Burbank High School, and put up cash for that portion of the materials which had to be purchased.


Apprentices did much of the actual construction work, and were supervised and in some instances assisted by journeymen. They thus put into a concrete form ideas developed by the apprentice training committees of San Antonio. Mr. Worcester is chairman of the Carpenter Joint Apprenticeship Training Committee.

W. H. McChesney, coordinator of apprentice training for the school district, summarized the principal benefits of the project in this way:

- (1) A permanent building, dedicated to the training of building trades apprentices, where for many years to come practical instruction can be provided.
- (2) An opportunity for the apprentices to work from plans on a "live" job.
- (3) Bringing employer and labor organizations closer together in a common project.
- (4) Opportunity for the manufacturers and suppliers of building materials to participate in providing sound apprentice training. In short, the apprentices, the labor groups, the contractors and the general public will benefit greatly.



San Antonio Building Apprentices' School and (insert) J. C. Worcester

A black and white photograph of a man in a plaid shirt using a SKIL Saw on a construction site. The saw is cutting through a piece of wood. The background shows a wooden frame structure.

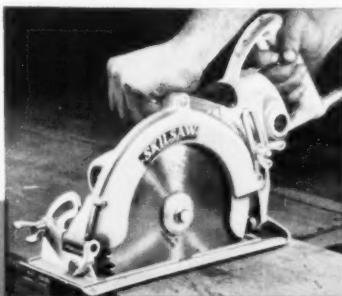
**"Up here I'll take a
SKIL Saw"**

"It's safer because it's easier to handle!"

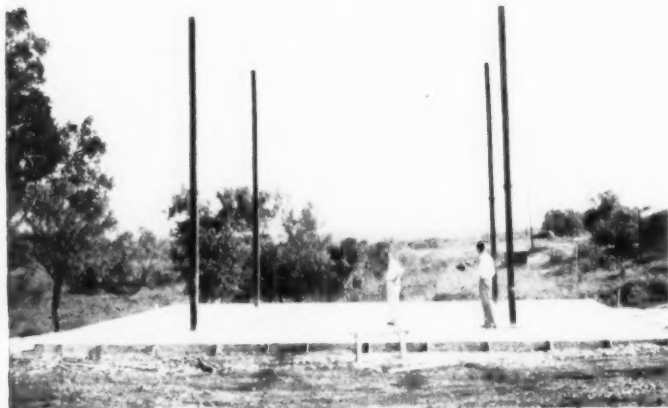
On every building job, extra safety is something you always want. And safety is one reason so many builders say, "I'll take SKIL Saw." SKIL Saw power prevents jamming or stalling that could throw you off balance; SKIL Saw has perfect balance for constant easy use; SKIL Saw provides two handles for sure control where two hands are needed.

Every SKIL Saw combines better balance, design and power. Together they give you the easy handling that pays off in added speed, added safety and better work. Ask your SKIL Tool Distributor for a demonstration today.

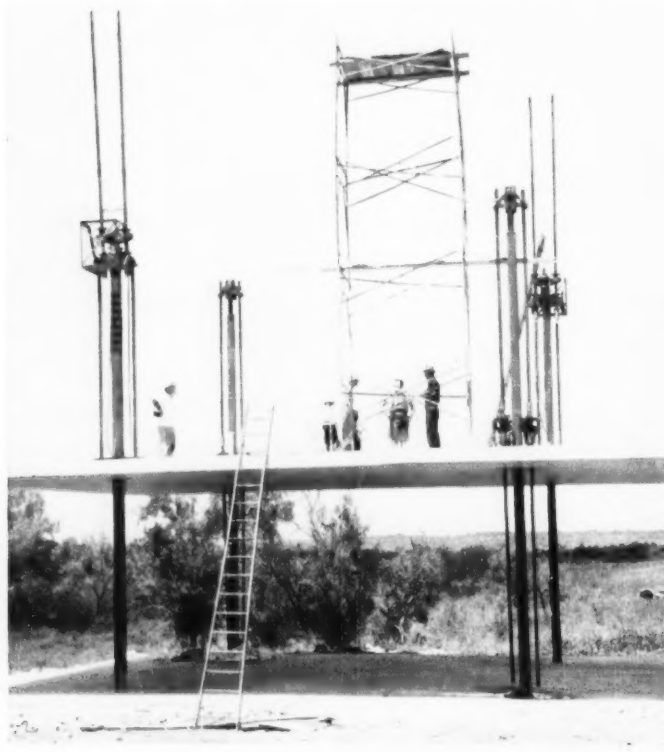
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SKIL ELECTRIC
TOOLS
PNEUMATIC



Roof or floor slab is poured on base slab, cured . . .



. . . then automatically hoisted to permanent position.

Savings Credited to New Building Method

A new cost-reducing building method, by which roof and floor concrete slabs are poured on a foundation slab, then hoisted to position after curing, has been unveiled by the Institute of Inventive Research, of San Antonio, Texas.

Indications that the "Youtz-Slick Building Method" may save up to 10 per cent by elimination of forms for monolithic concrete work were noted in December bids for the first full-scale building to be constructed by this method.

The institute reported that low bids on a 44,500 square foot, two-story administration building—one of two being constructed for Trinity University in San Antonio—were:

Youtz-Slick method: \$279,364, or \$6.35 per square foot.

Conventional method: \$303,364, or \$6.89 per square foot.

"During the experimental period (about two years), many authoritative observers expressed the belief that the Youtz-Slick method might be the first revolutionary advance in construction methods in half a century," the institute proclaimed.

The technique is essentially the casting of floor and roof slabs without forms and raising them to permanent positions, using automatic power lifting equipment. Foundations are poured in place, followed by the pouring of a base slab. Columns of pipe, structural steel or concrete are placed, anchored and grouted.

The base slab then is used as a bottom form, with concrete for the roof or upper floors laid on the base over a separating medium, and allowed to cure for at least seven days. Specially designed lifting equipment is placed on the columns and attached to the slab, which is then raised to its permanent position and welded to the column by means of a collar which was placed in the slab at the time of pouring.

William J. Lance, institute official, claims the method to be adaptable to multi-storied construction, and has announced that plans and specifications for its use in such construction are in preparation.

He said procedures for licensing the method to builders had not been completed. The method was not publicized until the Trinity University project because of the possibility of endangering pending foreign patent appli-

cations. The institute, which was founded to develop inventions, has to its credit several publicly accepted processes and devices, including the new Poulter Seismic Method for oil exploration.

Philip N. Youtz, New York architect, and Tom Slick, San Antonio business man and rancher, conceived the techniques independently of each other. Consultants working on the development of the method also include Fred N. Severud, New York consulting engineer; Alfred A. Gassner of Gassner Aircraft Engineering, New York; and O'Neil Ford, San Antonio architect; and engineers of Southwest Research Institute.

Contracts for the two Trinity University buildings—the second one a dormitory—were awarded in December to James Stewart & Co., Inc., A.G.C., New York City, and G. W. Mitchell, A.G.C., San Antonio. Separate contracts were awarded for plumbing and heating and electrical work.

HHFA Names Muirhead

William Muirhead, secretary-treasurer and past president of The Associated General Contractors of America, Inc., has been appointed a member of a 20-man advisory committee to the Housing and Home Finance Agency on matters of slum clearance.

The appointment of the A.G.C. official, who is president of the Wm. Muirhead Construction Co., Durham, North Carolina, was announced by HHFA Administrator Raymond M. Foley and Nathaniel S. Keith, director of the agency's division of slum clearance and urban development. Mr. Muirhead is the only general contractor in the group of 20.

Engineers, city planners—both private and municipal, mayors, labor representatives, home builders, and bankers, and insurance company officials make up the balance of the group. It held its first meeting in mid-January, and plans to meet on a bimonthly basis hereafter.

The first meeting came at about the time HHFA was reserving the first of its funds for communities with prepared slum clearance projects.

Earlier, representatives of the Society of Industrial Realtors had conferred with HHFA officials on the possibilities of turning some blighted metropolitan areas into sites for modern industrial plants.

Weather Effect on Building Discussed

• Scientists, Government, Industry Represented at Conference

The Building Research Advisory Board's first conference, held at the National Research Council in Washington last month, turned out to be a lively two-day meeting with an average of 200 in attendance each day to discuss "Weather and the Building Industry."

More than 300 were registered as noted climatologists, heating and ventilating engineers, architects and others wrestled with the subject of how to attain more human comfort in structures at the least possible cost.

The conference was skillfully steered through technical channels by the chairman, Dr. C. F. Rassweiler, of B.R.A.B., vice president in charge of research and development, Johns-Manville Corporation.

Conference Called Success

While many of the terms used by the weather scientists may have seemed abstruse or too complicated for the layman, it was evident that the conference was successful, and stimulated ideas, that may bring results, among leading researchers in the field.

The heating and ventilating industry, as might be expected, already has indicated that an increased emphasis may be placed on climatological research. A move also has been suggested to study more thoroughly moisture deterioration in buildings outside northern areas. It also is considered desirable by many to ask the climatologists for information as to solar input through vertical surfaces as well as horizontal.

Among the important points arising from the meeting are:

(1) There is a great need for the study of the effects of climate on completed structures, not models or theory. In this respect, one of the most interesting papers presented was that of Prof. F. E. Giescke, Texas consulting engineer, who described a project under way in Austin to develop better construction and sanitation methods at a reduced cost. Seven closely similar houses are being constructed, but with each differing in methods of heating, cooling and ventilating, and in the construction of foundations, walls, windows, floors, ceilings, and roofs.

(2) There is a need to obtain more climatological information, and to use

the research intelligently. The heating and ventilating industry, and architectural profession were cited as having progressed in this work.

(3) Weather data must be used to design a building to withstand extreme conditions, but at the same time leaving it adjustable to give maximum comfort under usual conditions.

(4) A building must be designed to fit its localized climatic surroundings. Great variations in temperature, for instance, occur within short distances, depending on geography.

(5) One of the points of great concern on which some research now is being conducted is the attainment of comfortable conditions in a structure without mechanical devices during the off heating season, when there is a low external air movement.

(6) Climatologists, as stressed by Francis W. Reichelderfer, chief of the U. S. Weather Bureau, Washington, D. C., would welcome requests for more data, rather than be left to grope around in the dark about the building industry's needs. They point out that climatology too often has been considered amateurish, and insist it should be compared with geology or medicine. The services of a consulting climatologist were advised for particular projects.

Those attending the conference, which was arranged by B.R.A.B. Director William H. Scheick, included representatives of research laboratories conducted by private industry, colleges and universities, private foundations, and various government agencies, as well as architects, engineers and builders from all parts of the United States and Canada.

Slum Clearing Allotments

First preliminary allocations of federal grant funds for the nation's new slum clearance and urban redevelopment program were made last month by the Housing and Home Finance Agency. The six first cities to file will receive more than \$5,000,000 in federal funds. They are Nashville, Tennessee, \$1,861,000; Dallas, Texas, \$1,758,400; St. Paul, Minnesota, \$1,276,870; Jackson, Tennessee, \$300,000; Albany, Georgia, \$200,830; and Perth Amboy, New Jersey, \$177,170.

CHAMPION of

Contractors and Operators throughout the Country Proclaim the New TD-24 CHAMPION of Crawlers

The International TD-24 has proved itself CHAMPION of Crawlers. On job after job, the new TD-24 has won the admiration of operators for the ease with which it does work which other tractors cannot do. Contractor-owners are equally enthusiastic, for they see the TD-24 outworking and out-producing every other tractor in the field.

Greater power, and the weight and traction to match, plus new operator convenience and ease of control, give the TD-24 much more than an edge over any other tractor you might name.

Experienced operators and owners have this to say about the new TD-24: (names on request)

"In my estimation the TD-24 is the heavyweight champion of crawler tractors."

"The TD-24 works right along on slopes so steep we have to cut them down before other tractors can even navigate unloaded. TD-24's are fast tractors, easy to shift and have plenty of power. This combination really moves dirt . . . made us more money than any other tractor could."

"The TD-24 is a wonderful piece of machinery and I can't say enough for it. Our operators feel they are wasting their time when they run other tractors, for no other tractor built can compare with the work these TD-24's can do."

Visit your International Industrial Power Distributor and see what the TD-24 can do for you. You'll agree it's the CHAMPION of Crawlers—the one tractor you can't afford to be without, for profitable earthmoving.

**INTERNATIONAL HARVESTER COMPANY
Chicago**

JOB FOREMAN REPORTS SAVINGS

"It (the TD-24) is definitely outhauling every other tractor on the job," says the foreman on this 247,000-yard stadium bowl job in Maryland. "It will do so much work that we are sure our job costs will show a great saving."



Crawlers

"Worth Two of Any Other Heavy Tractor," says Lindsey Belville, president of Greasy Ridge Coal Co., Greasy Ridge, Ohio, strip mine. "This is the best tractor I've ever used in my five years experience," says Warren Bare, the tractor operator shown working it in heavy rock. "It is the only one that will do everything I want it to," he claims.



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CRAWLER TRACTORS • WHEEL TRACTORS • DIESEL ENGINES • POWER UNITS



\$41 Billion Highway Need Cited By Congressional Committee

• Joint Economic Report Unit Lists Requirements

» THE UNITED STATES would have to spend \$41,000,000,000 on its highways, roads and streets in the next 10 years to meet its estimated needs, the Joint Committee on the Economic Report said in a special report issued late in January.

The report was issued under the title: "Highways and the Nation's Economy." Senator Joseph C. O'Mahoney (D., Wyo.), chairman of the Joint Committee on the Economic Report, said that the estimate was based on reports of the governors and highway commissions of all the states as to what their own needs were. These were listed individually.

The figure jibed almost exactly with the statement of the Council of Economic Advisers to the President that the highway needs of the nation were four billion dollars annually. (Story on Page 26.) It also was in line with

an estimate of J. A. Anderson, director of highways for the State of Virginia and vice president of the American Association of State Highway Officials, at the recent meeting of the Highway Research Board in Washington.

The committee's total was broken down as follows: State highways, \$23,000,000,000; county and rural roads, \$10,400,000,000; city and village streets, \$7,700,000,000.

In citing the nation's highway needs, the committee emphasized also two factors: The declining cost of highway construction, and the importance of the nation's highways to the country's economy as a whole.

Noting the highway cost decline in 1949 from the peak of the last quarter of 1948, the committee found that in some states this decline amounted to 10 per cent.

"The vital importance of maintaining a highway system capable of meeting the demands of a \$250,000,000,000 economy and the size of the market it offers," said Senator O'Mahoney in a statement accompanying the report, "is apparent when we recall that almost 900,000 persons are employed in manufacturing motor vehicles, tires and parts, and 100,000 are engaged in producing the gasoline consumed by the nation's cars and trucks.

"Over 1,500,000 persons are employed in selling and servicing the vehicles traveling over 100,000,000 miles of our highways and at least 600,000 persons are engaged directly in construction and maintenance of our highways, roads and streets. Indirectly, many people derive all or part of their income from the highway transportation industries."

The committee noted that improvements in highways and roads could be translated into cheaper transportation for the public. A saving of one cent on each of the 100,000,000,000 vehicle miles traveled in the United States in 1949, it was pointed out, would have amounted to \$4,000,000,000.



The West Virginia State Road Commission is now constructing small bridges of precast members after one built in 1948 as a trial structure has proved successful.

During the past year, at least three were erected on new highways and 20 on existing roads.

Where an entirely new bridge is required, the abutments are constructed as open curbs of precast members, as illustrated in one of the photographs above. The only cast-in-place concrete

required for abutments is the bridge seat or slab upon which the deck will rest. On replacement of old bridges as a maintenance operation, the old abutments were utilized.

The decks of the precast bridges are designed for various loadings, but primarily for the H20 loading or that for which most highway bridges are designed. Cost of the deck is \$3 to \$3.50 per square foot, depending on the distance required to deliver the precast longitudinal channels of which



the road is built. These members are of the type illustrated and are three feet wide, with the width of the arms 16 inches.

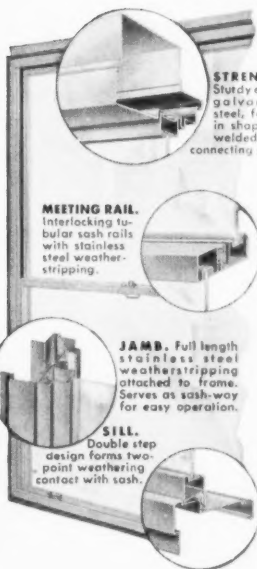
On a bridge of 40 feet clear span, the heaviest deck member is 6½ tons. Galvanized shear bolts of one inch diameter tie the adjacent deck members together.

The Universal Concrete Pipe Co., which has a plant at Clarksburg, West Virginia, is the manufacturer.



TRUSCON SERIES 138 DOUBLE-HUNG WINDOWS

extremely strong



STRENGTH.
Sturdy electro
galvanized
steel, formed
in shape and
welded at all
connecting points.

MEETING RAIL.
Interlocking tu-
bular sash rails
with stainless
steel weather-
stripping.

JAMB. Full length
stainless steel
weatherstripping
attached to frame.
Serves as sash-way
for easy operation.

SILL. Double step
design forms two-
point weathering
contact with sash.



Truscon Series 138 Double-Hung Windows in Garth Woods Apartments, Scarsdale, New York, Geo. F. Pelham, Architect, Frank Morell Construction Co., Inc., Contractors.



Truscon Series 138 Double-Hung Windows in Southern Pines School, Southern Pines, N. C., Luxton Const. Co., Charlotte, N. C., Contractors; William Henry Dietrich, Inc., Archts., Raleigh, N. C.



Typical installation of Truscon Double-Hung Windows in a residence, illustrating the wide, obstruction-free glass areas, and the ample use of nature's free sunlight and fresh air.

...extremely attractive in price

The building world needed a window so strong, so efficient, so moderately priced that it would be adaptable to a wide range of construction requirements. Truscon applied all its exceptional facilities to the problem—great experience in windows, expert engineering talent, tremendous manufacturing facilities. Result: the Truscon Series 138 Double-Hung Steel Window is now the most widely used unit of its kind in residential, school, institutional and commercial structures! Due to the wide range of standard types and sizes offered, and the availability of integrally built sill ventilators, together with fixed center panels, the designer can create a distinctive window arrangement exactly to meet any particular requirements. Modular standards employed throughout. Write for illustrated literature giving complete details.



FREE Book on Truscon "O-T" Steel Joists. Write for it. The Truscon Steel Company Manufactures a Complete Line of Steel Windows and Mechanical Operators . . . Steel Joists . . . Metal Lath . . . Steel-deck Roofs . . . Reinforcing Steel . . . Industrial and Manager Steel Doors . . . Bank Vault Reinforcing . . . Radio Towers . . . Bridge Floors.

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**LOW PRICE
Low Operating
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Low Maintenance**

3 NEW CEDARAPIDS

...ready now

HIGH CRUSHING AND SCREENING EFFICIENCY GOOD PRODUCTION • 100% PORTABLE

THREE new *low priced* crushing and screening plants added to the complete Cedarapids line is good news for your 1950 budget. Now you can get true Cedarapids quality for a low capital investment—the *better* value that results from Cedarapids volume production of a complete size range of aggregate producing equipment. These three new plants, specifically designed for moderate sized jobs, are quality built throughout for all the crushing and screening efficiency of the big capacity plants. Manufacturing economies resulting from simplified design and volume production are passed on to you in lower first cost. Good capacity, low operating and maintenance costs, and long service life are the economical answer to your aggregate producing problems. Write for full details, specifications and prices.

IOWA MANUFACTURING COMPANY • Cedar Rapids, Iowa, U.S.A.

THE NEW SINGLE- PASS

A low priced, simple, heavy duty unit for producing low cost crushed gravel and rock in one pass. Recommended for jobs where the material is screened into only one size, the Single-Pass is ideal for road maintenance work, jobs in locations that are inaccessible to heavier types of equipment and wherever portability and fast set-up are important. High mobility permits inexpensive moving to gravel pits close to the road, resulting in low hauling costs. Extremely low plant maintenance and operating costs are made possible by Cedarapids high quality construction, simple design and the few moving parts. Four sizes are available with either plain or roller bearing crushers; 1016, 1020, or 1024, or 1216 twin jaw. Bulletin SSP-1 gives complete information.

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THE IOWA LINE of Material Handling Equipment Includes:

ROCK AND GRAVEL CRUSHERS • BELT CONVEYORS • STEEL BINS • BUCKET ELEVATORS • VIBRATOR AND REVOLVING SCREENS • UNITIZED ROCK AND GRAVEL PLANTS • FEEDERS • TRAPS • PORTABLE POWER CONVEYORS • PORTABLE STONE AND GRAVEL PLANTS • REDUCTION CRUSHERS • BATCH TYPE AND VOLUMETRIC TYPE ASPHALT PLANTS • HAMMERMILLS • DRAG SCRAPER TANKS • WASHING PLANTS • SOIL COMPACTION UNITS • STEEL TRUCKS AND TRAILERS • KUBIT IMPACT BREAKERS

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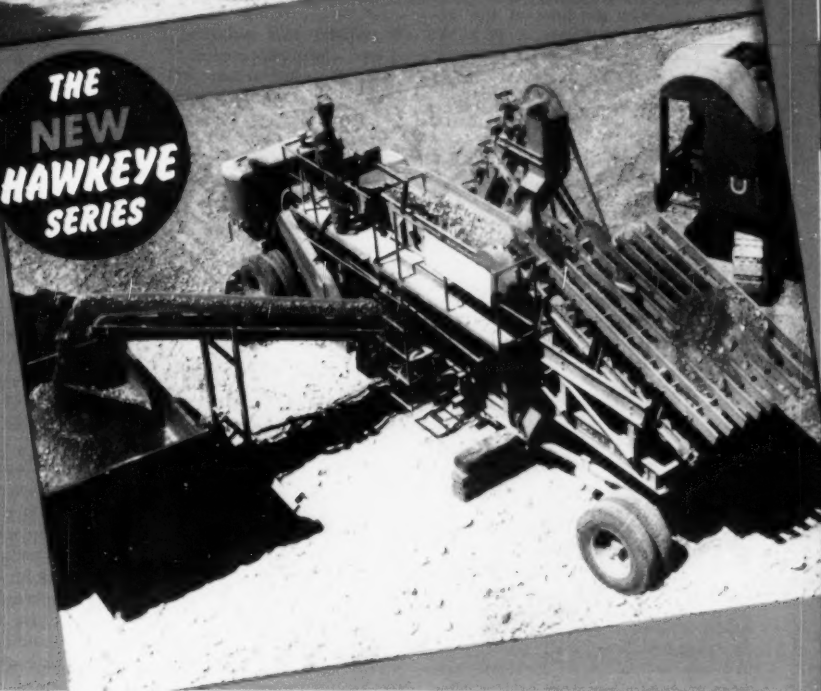
**THE
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Double-duty performance in one machine! This high capacity crushing and screening unit, all on one chassis, does the work of two single crusher units, and at lower cost. It produces "aglime" or road rock, or both, with an output of 60 to 80 t.p.h. of 30% minus 10" and 50% plus 14" to 1" of limestone, crushing from 18" stone down to specification "aglime" in one operation, with one operator. The famous Cedarapids horizontal "Aglime" Screen permits extremely accurate gradation. Quickly set up, the ROCK-IT can be moved around the pit without dismantling. Low first cost, and low operating and maintenance costs increase your saving. Available in three plans — Model 20 with the 3053 Hammermill, Model 30 with the 3055 mill, and Model 22 with the 3022 roll screen. All have 18' x 24" primary jaw crushers. Get full details from Bulletin 31P-1.

Low first cost, thrifty operation and low maintenance mean better roads at lower costs per mile. Producing from 50 to 75 t.p.h., the Hawkeye plant moves with the job to the nearest gravel bank, saving the cost of long hauls. This sturdy, lightweight plant is 100% portable for easy access to out-of-the-way locations and can be taken over almost any roads and bridges. Extremely low operating costs are made possible by the simple design and use of Cedarapids high quality equipment throughout. The large capacity screen and crusher handle a wide variety of conditions, and produce screened sand as well as accurately sized road gravel. With a Cedarapids Hawkeye on the job site, average gravel can be crushed at lower cost per ton, with savings on maintenance, hauling costs, eliminating pit run boulders and oversize cobbles from the roadway. Four sizes available, with 1016, 1020 or 1024 either plain or roller bearing crusher or a 1216 twin jaw roller bearing crusher. It's a complete plant with closed circuit and it is low priced. Write for Bulletin HAWK-1.

**THE
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IOWA MANUFACTURING COMPANY

Cedar Rapids, Iowa, U.S.A.

Missouri Basin Construction Beginning to Accelerate

- Reclamation Bureau, Engineers Report 1949 Progress
- Many Contractors Well Ahead of Schedule on Projects

» THE YEAR'S END found the Missouri River Basin program, with its more than 100 dams and other flood control and navigation projects, making rapid progress at the completion of its fourth construction year.

Authorized in the 1944 Flood Control Act, the comprehensive valley project, coordinating the efforts of several government agencies, principally the Bureau of Reclamation and the Corps of Engineers, represents one of the biggest and most complex planning and construction jobs ever undertaken in peacetime.

Also known as the Pick Sloan plan, the program has been under constant attack by advocates of regional authorities along the lines of the Tennessee Valley Authority.

President Truman Seen Advocating Super Valley Authorities —Page 50

Although many authorized projects in the four-billion-dollar program are now rapidly nearing completion, it may take a number of years to bring it to its ultimate completion, as new development possibilities arise.

At the beginning of 1950, accelerated progress was reported in construction by both the Bureau of Reclamation and the Corps of Engineers.

Good Working Season

Reclamation reported that although nearly all major construction was shut down during December due to the weather, the working season had been long and favorable.

"As a result, contractors have built up a good lead on the time schedule and should not fall behind during the layoff this winter. Weather and working conditions have been so good that many jobs are approaching a point where considerably more money will be needed than originally anticipated. Already several shifts in funds have been made to allow work to proceed at full steam."

While over-all utilization of appropriated funds has not been keeping pace, this is due to the scheduling of

a substantial amount of heavy construction in the spring months, including several new starts: Tiber Dam, Missouri Diversion Dam, Key-hole Dam, Anchor Dam, and many large transmission lines.

The Corps of Engineers by the end of 1949 had under construction 73 per cent of its authorized projects in the basin, according to Brig. Gen. Samuel D. Sturgis, Jr., Missouri River Division Engineer.

Contractors Beat Schedules

Time after time, contractors were reported well ahead of schedule in December on Reclamation work. Examples:

J. A. Terteling and Sons, A.G.C., completed 12.8 miles of Cambridge Canal ahead of schedule.

Final construction of Medicine Creek Dam was accomplished by the C. F. Lytle Company, A.G.C., and Amis Construction Company, A.G.C., in less than half the time allowed by the contract.

(See Heart Butte Dam schedule on opposite page.)

The Shadepill Dam was 41 per cent completed with only 25 per cent of time elapsed on November 30.

Corps of Engineers' Construction

In summarizing construction progress by the Corps of Engineers, General Sturgis revealed that in December the Corps had contracts totalling \$161,000,000 in force in the basin.

In addition, another \$47,000,000 of contracts were completed last year, apart from construction accomplished in prior years.

"It has been a year marked not only by satisfactory construction progress throughout the basin," the general said, "but also by close cooperation between the federal and state agencies teamed together in this large undertaking. The coordinating function performed by the Missouri Basin Inter-Agency Committee has contributed substantially to construction progress and unity of action in the basin."

"Construction strides made this year," said General Sturgis, "make

it possible to anticipate that two of the largest multiple-purpose projects on the Missouri River will be substantially completed and ready for initial operation in four years, if sufficient funds are made available."

These, the Garrison Dam in North Dakota and the Fort Randall Dam in South Dakota, were listed as 26 and 21.5 per cent completed, respectively. Garrison Dam will be the largest rolled earth-fill dam in the world, and will create the greatest single storage reservoir in the entire Missouri Basin program.

Other 1949 accomplishments listed by the division are:

(1) Virtual completion of the Cherry Creek flood control dam, started in 1946 and now ready to protect the city of Denver against major floods.

(2) Harlan County Dam on the Republican River in Nebraska, 54 per cent complete.

(3) Completion or the placing under construction of 160 miles of agricultural levees along the Missouri River below Sioux City, Iowa.

(4) Construction of 53 miles of dike and revetment structures in the Missouri River under the authorized nine-foot navigation project.

(5) Substantial progress on major flood prevention levees and flood-walls at the Kansas Citys, Omaha, and Council Bluffs, with the Omaha project nearing completion.

Garrison Dam Records

In the 1949 working season, 22,000,000 yards of earth were moved by contractors on the Garrison Dam project, establishing new earth-moving records, "the equivalent of excavating a hole 100 feet square to a depth of 11½ miles."

Construction of the eight tunnels which will carry the river through the dam was initiated early in the year, and work is in progress on the intake structure. Contract for the stilling basin and powerhouse foundation is scheduled for letting next spring.

In addition to projects built or building, the Engineers have a number of current flood control studies under way. Advanced planning was accomplished on other authorized projects, such as the Gavins Point Dam on the Missouri River near Yankton, South Dakota.

Heart Butte Dam Finished Year Early

The Bureau of Reclamation, as 1950 began, pointed with pride to the fact that Heart Butte Dam, on the Heart River in North Dakota, had been finished almost a year ahead of schedule — the second major dam to be completed for the bureau as part of the Missouri River Basin project.

Contractors on the job were the C. F. Lytle Company and the Green Construction Company, both members of The Associated General Contractors in Des Moines, Iowa. They were given notice to proceed with construction on March 22, 1948, and the contract called for completion by November 22, 1950.

The Heart Butte Dam is located on the Heart River in the west central area of North Dakota and is a key structure in the Heart River unit of the Missouri River Basin Project. It is an earthfill structure, 174 feet high and 1,850 feet long at the crest. It will create a storage reservoir with total capacity of 428,000 acre-feet which will be used for irrigation storage, flood control and silt retention.

Cost of the dam and reservoir was approximately \$3,335,000, according to the Bureau of Reclamation.

The bureau's photographs on this page were taken 90 days apart, the "shot" of the dam work in its earlier stages having been taken on May 24, 1949. They show, as a bureau spokesman put it, "the unusual construction progress made in the 90-day interval."

"The early completion of Heart Butte Dam," Reclamation Commissioner Michael W. Strans said, "is indicative of the speed with which work is proceeding on the great basin-wide project to bring the Missouri River and its tributaries under control and to put them to work."

First Missouri River Basin Project Dam to be completed was the Angostura Dam in South Dakota, finished last fall. Medicine Creek Dam was completed in December. The Bureau of Reclamation said that dirt was moving on nine other Missouri River Basin dams at this time.

Construction of pumping plants and an irrigation distribution system for the Heart River unit is to start this spring, and initial water delivery to an ultimate 13,000 acres of land near Mandan is scheduled for a year later.



Heart Butte Dam, 85 Per Cent Completed
(Snow Now Hides Completed Dam)



The Same Site, Just 90 Days Earlier
(Taken From Different Angle)

'Super' Valley Authority Plan Is Seen Goal of Mr. Truman

- Mississippi-Missouri-Ohio Single Unit in His View
- Press Questions Bring Policy Statement Now

» **PRESIDENT TRUMAN** Last month gave strong indications that he has in mind at least one "super" valley authority, and possibly more, in his thinking on public power development and flood control work.

In his State of the Union and Economic Messages (other stories in this issue), the President spoke specifically of only the Columbia Valley Authority, the St. Lawrence seaway and power project, and New England power development. His considerably wider plans were revealed at a press conference in answer to questions from correspondents.

The scope of his thinking was indicated in exchanges concerning the Mississippi, Missouri and Ohio Rivers. If we could get the upper Mississippi-Missouri-Ohio developed (in connection with other projects), Mr. Truman said, we would have an inexhaustible supply of power, of which, he said, he did not think we could ever have enough.

Only One Indication

A moment or two later, a correspondent asked whether it was Mr. Truman's idea that the Pick Sloan plan (Pages 39-41, December 1945 *Constructor*) would develop into a Missouri Valley Authority. Yes, replied the President, he was sure it would—and then, he added, he wanted to get a Mississippi-Missouri-Ohio project.

He was interested, Mr. Truman said, in the Mississippi-Missouri-Ohio River Valley as an over-all valley project for the United States. Later, he refused to answer directly a question as to whether such a project would mean the merging of his anticipated MVA into a super authority. Experienced White House correspondents, familiar with the President's power and conservation policies, concluded he did have some kind of a super authority in mind.

This, however, was only one indication of where Mr. Truman may be seeking to go in power and conservation policy.

There were, the President said, four great power projects in which he was interested. He listed these as the Northeast, including the Passamaquoddy (Maine) project, river power and the St. Lawrence seaway and power project; the Northwest, including the Columbia and Snake Rivers; the Southwest, including the Central Valley in California, Boulder Dam, Texas, northwest Arkansas and northeast Oklahoma; and the Southeast, including the Tennessee Valley Authority and the rivers of South Carolina on which work now is going on.

It was then that he added his remark about the development of the Mississippi-Missouri-Ohio and an inexhaustible supply of power.

The President's ideas were not presented in an organized fashion, but were developed by rapid fire questions, with questions on totally unrelated subjects frequently interposed. They seemed, however, to some observers to sketch in some of the details of a general plan which he had outlined June 10, 1948, in a campaign speech to the Washington State Press Club at Seattle, Washington.

At Seattle, he said in part: "The Federal Government must press forward vigorously to control the waters of our rivers and direct them to useful projects. . . . We know what must be done to achieve this. We have already proved it in the Tennessee Valley. . . . What we have done in the Tennessee Valley, we can do elsewhere. We already have been moving in that direction in other great river basins such as the Missouri, the Colorado, the Central Valley in California, and the Columbia.

Purpose the Same

"Our purpose is the same in all of them—to conserve and use water, instead of wasting it. But to achieve that simple purpose, we must follow a great concept of unified development of all the resources of each area."

At that time, he charged that "selfish interests" including "the private power lobbyists" were opposing such

valley planning, and he urged the voters to make their voices heard in Congress in support of his plans. This was the year of his largely unexpected victory over Governor Thomas E. Dewey in 1948.

The January press conference discussion was started by a specific question as to whether Mr. Truman planned a separate message to Congress on New England power development. He said he did. Then a correspondent complained he was confused about the status of the St. Lawrence seaway and power project. Mr. Truman said he wanted a seaway and power project, controlled by the United States and Canada, each on its own side of the border, which would allow ocean-going ships to anchor in Chicago and Duluth, while providing additional power at the same time.

Different in Congress

These exchanges started off the questioning which resulted in Mr. Truman's statement of policy.

There was no sign from Capitol Hill, however, that Congress was any more inclined to go along with valley authorities than it was last session when it did nothing with the CVA proposal. The generally more conservative tenor of the Hill, in fact, seemed to indicate that, unless Mr. Truman could engineer a pretty big political job, the valley authorities—regular and super—were apt to stay in the talk stage.

At the same time, opponents of the authority way of doing business recognized that the President's statements undoubtedly would stir up supporters of such a system.

Water Board Named

President Truman last month named a Temporary Water Resources Policy Commission of seven men to lay down a new federal policy for the "development, conservation and use of the nation's water."

Morris L. Cooke, who shares President Truman's views on power and flood control matters, was named chairman. Another of the seven is Leland Olds, whose renomination to the Federal Power Commission the Senate recently refused to confirm.

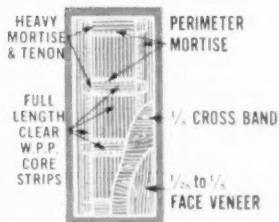
Others on the commission are R. R. Renne, Lewis W. Jones, Gilbert White, and Paul S. Burgess, all educators; and Samuel B. Morris of the Los Angeles Department of Water and Power.

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A. G. C. Convention Will Plan For Big Construction Year

• California Meeting to Review Association Activities

» THE PROBLEMS of maintaining favorable industry conditions to meet a prospective \$20,000,000,000 new construction demand in 1950 will be studied by The Associated General Contractors of America at its 31st annual convention February 27 to March 2 at the Palace Hotel in San Francisco.

The state of the nation's economy and its repercussions on construction will be a major topic on Monday afternoon when President Adolph Teichert, Jr., of Sacramento, California, opens what is expected to be one of the largest conventions in association history.

Speakers on the first day who are

expected to discuss important aspects of the current economic situation include W. Walter Williams, chairman of the Committee for Economic Development, and Dr. Edwin G. Nourse, former chairman of the President's Council of Economic Advisers.

Current construction conditions, and a review of the association's activities during the past year, will be presented by President Teichert and Managing Director H. E. Foreman.

Governor Earl Warren will extend the welcome of California.

Tuesday's general session will consider developments on highway construction, labor-management relations, apprentice training, accident preven-

tion, contracts and specifications, and insurance. Vice President Walter L. Couse of Detroit will preside.

Speakers will include DeWitt C. Greer, president of the American Association of State Highway Officials, and State Highway Engineer of Texas, at Austin; and Henry G. Sheehy, of San Francisco, vice president Massachusetts Bonding and Insurance Company.

Division Meetings

The association's three divisions will hold luncheons Tuesday noon, followed by division meetings.

The Building Contractors' Division, with Chairman C. P. Street, Charlotte, North Carolina, presiding, will have as luncheon speakers Raymond J. Ashton, of Salt Lake City, former president of the American Institute of Architects; and William H. Scheick of Washington, executive director, Building Research Advisory Board.

The Highway Contractors' Division, with Chairman Carl E. Nelson, Logan, Utah, presiding, will have as a luncheon speaker Carl E. Fritts of Washington, director, Highways Division of the Automotive Safety Foundation. During the afternoon there will be an open meeting of the Joint Cooperative Committee of A.G.C. and the American Association of State Highway Officials.

The Heavy Construction and Railroad Contractors' Division, with Chairman A. S. Homer, Denver, Colorado, presiding, will have as speakers Captain A. D. Hunter, deputy chief, Bureau of Yards and Docks, Department of the Navy, representing Read Admiral Joseph J. Jelley, Jr.; and Colonel Walter D. Laplow, acting division engineer, South Pacific Division, Corps of Engineers, representing Lieutenant General Lewis A. Pick.

The divisions also will hold luncheons and meetings on Wednesday.

Other general sessions will be held Wednesday and Thursday mornings. At the concluding session Thursday resolutions will be adopted, the final business of the convention transacted, and new officers installed. Mr. Couse is president-elect, and G. W. Maxon, Dayton, Ohio, is vice president-elect.

The annual banquet Thursday night will conclude a planned program of outstanding entertainment. Hosts to the convention are the Northern and Central California Chapters in San Francisco; Southern California Chapter in Los Angeles, and San Diego Chapter.



California Convention Committee Plans Entertainment

The California Convention Committee met in Los Angeles January 18 to plan further convention arrangements and entertainment.

Entertainment will include a reception and dinner dance Monday night, a ladies' luncheon Tuesday noon, and the annual banquet Thursday night. The committee will assist in making arrangements for special activities members and their wives wish to attend.

R. E. Modglin, San Francisco, seated, center, is committee chairman. Others attending the meeting are, seated, W. D. Shaw, Los Angeles and Art B. Smith, San Francisco.

Standing, left to right, are George C. Loorz and A. E. Holt, San Francisco; R. S. Seabrook, San Diego; Frank G. Corker, Winfield H. Arata, San Francisco; Gordon H. Ball, Berkeley; and Claude A. Fisher, Los Angeles.

» THE RESULTS of elections of officers and directors of The Associated General Contractors of America, Inc., for 1950 were announced last month by A.G.C. Managing Director H. E. Foreman, in accord with the association's procedure, as follows:

PRESIDENT—1 year

Walter L. Couse
Walter L. Couse & Co.
Detroit, Michigan

VICE PRESIDENT—1 year

G. W. Maxon
Maxon Construction Co., Inc.
Dayton, Ohio

DIRECTORS

District 1

Heavy-Railroad—3 years
A. S. Macdonald
Strong & Macdonald, Inc.
Tacoma, Washington

Highway—3 years
Wayne C. Sutton
Washington Asphalt Co.
Seattle, Washington

District 2

Heavy-Railroad—3 years
*John MacLeod
Macco Corporation
Paramount, California

Building—3 years
*Fred J. Early, Jr.
Fred J. Early, Jr., Co., Inc.
San Francisco, California

District 3

Heavy-Railroad—3 years
*A. S. Horner
A. S. Horner Construction Co.
Denver, Colorado

District 4

Building—3 years
W. Murray Werner
The Werner Company
Shreveport, Louisiana

Highway—3 years
*J. Rutledge Hill
Gifford-Hill & Co., Inc.
Dallas, Texas

District 5

Building—3 years
Carl W. Olson
Olson Construction Co.
Lincoln, Nebraska

A.G.C. Announces Results of Elections

District 6

Heavy-Railroad—3 years
L. D. Sinclair
Foley Brothers, Inc.
St. Paul, Minnesota

District 7

Highway—3 years
*Robert E. O'Connor
J. C. O'Connor & Sons, Inc.
Fort Wayne, Indiana

District 8

Building—3 years
E. J. Wheeler
Frank Messer & Sons, Inc.
Cincinnati, Ohio

Building—2 years

C. L. Davis
Miller-Davis Company
Kalamazoo, Michigan

District 9

Heavy-Railroad—3 years
*W. L. Sharpe
W. L. Sharpe Contracting Co.
Memphis, Tennessee

District 10

Heavy-Railroad—3 years
V. B. Higgins
V. B. Higgins Company
Greensboro, North Carolina

Highway—3 years

J. L. Ewell
Lakeland, Florida

District 11

Building—3 years
H. B. Alexander
H. B. Alexander & Son, Inc.
Harrisburg, Pennsylvania

*H. C. Turner, Jr.
Turner Construction Co.
New York, New York

District 12

Heavy-Railroad—3 years
*Roy B. Rendle
Roy B. Rendle & Co., Inc.
East Boston, Massachusetts

* Indicates reelected



The Teller Committee met in the Associated General Contractors headquarters office in Washington on January 5 to canvass with the managing director the ballots for elections of A.G.C. officers and directors.

President Adolph Teichert, Jr., will install the new president and vice president at the close of the 31st annual convention in San Francisco on March 2. The newly elected directors will take office at the Governing and Advisory Board Meeting that afternoon. The boards will elect the secretary-treasurer.

In the picture, left to right, are C. S. Embrey, administrative assistant; Managing Director H. E. Foreman; Francis Tompkins, Washington; Edward P. Coblentz, Baltimore, committee chairman; and C. I. Mehl, A.G.C. national staff.

there's a TON OF DUMPTOR STRENGTH

ASK TOO ABOUT KOEHRING HEAVY-DUTY $\frac{1}{2}$, $\frac{3}{4}$, $1\frac{1}{2}$, $2\frac{1}{2}$ -YD. EXCAVATORS

for every
ton of
payload



Write for illustrated bulletin on new $2\frac{1}{2}$ yard Koehring 1005 Shovel.

Dumptors*

stand up under the severest shocks of shovel-loading $1\frac{1}{2}$ to $2\frac{1}{2}$ yards or rock at a pass because they're built extra tough for rock handling. There's more than a ton of net vehicle weight for every ton of payload.

All-welded body sides, ends and bottoms are heavily reinforced with 4" channel ribs. More than triple strength has been built into the bottom . . . seasoned $1\frac{3}{8}$ " oak timbers are securely bolted between two layers of $5/16$ " steel plate. Steel-oak-steel construction cushions shocks of rock loading. Free-swinging, kick-out pan adds an-

other tough $3/16$ " high-manganese steel plate for extra protection. Dumptor also has: rugged main frame, 8" ship-channels, heavily trussed . . . one-piece steel drive-axle housing and transmission case . . . 4" chrome steel drive axles . . . cast alloy steel "I" beam steering axle. All add extra strength to Dumptor chassis.

Heavy-duty construction like this assures you that Koehring Dumptors will stand up under your toughest assignments . . . that there will be little down time with Dumptors on your job. For complete facts, see your Koehring distributor today.

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KOEHRING 16-2 TWIN-BATCH*, MOBILE . . . VERSATILE . . . controlled ELEVATED DISCHARGE. Mixes up to 50 cu. yds. per hour on streets, highway widening, bridges, culverts, retaining walls, foundations, batching. Has 64' elevating boom, 21-foot discharge height. Travels up to 6 m.p.h. on 11x20 pneumatic tires. Get complete facts in new 16-2 TWINBATCH bulletin.

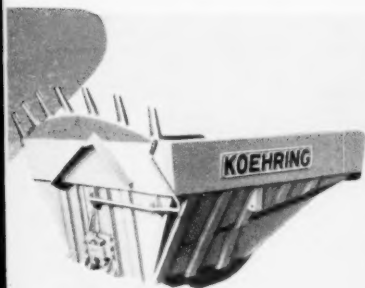


KOEHRING

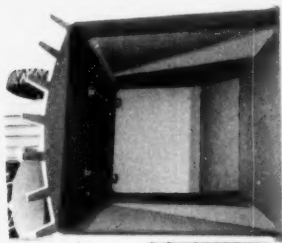
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DUMPTOR BODY HEAVILY REINFORCED All-welded sides, ends and bottom of heavy-duty 6-yard Dumptor body are heavily ribbed with 4" channels. High-carbon steel gives extra strength and protection at stress points...where the abrasive action of rock handling is most severe.



KICK-OUT PAN adds an extra 3' 16" high-manganese steel plate on top of sturdy Dumptor bottom... breaks suction of sticky materials for fast, clean dump. Big 8' x 8' top gives easy-to-hit target for fast loading over the side or end with less spillage.



... Operator trips body release lever... gravity instantly tilts scoop-shaped body. One second later, load is out and Dumptor is off for another load. No slow-moving body hoists... no body hoist maintenance.

K910



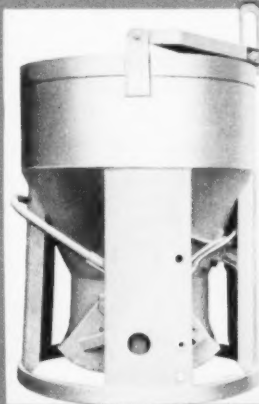
250 Trenchliner*... Fast Digging

In the 250 Parsons Trenchliner you get 30 digging speeds (3.8 to 100" per minute) for maximum trenching efficiency in any material short of solid rock. Flexibility is further increased through its range of cutting widths (16 to 42"). Digs up to 12½' deep... cuts to within 12" of side obstructions. Arc-type conveyor discharges spoil on either side of machine. For a profitable idea of what the 250's fast digging speeds and flexibility can mean to you, see your Parsons distributor. 3 other heavy-duty Trenchliners and utility-size Trenchmobile also available.

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Engineer Approved JOHNSON Lo-Slump Concrete Bucket Handles any Stiffness of Concrete

Available in 2, 3, 4 and 8 cu. yd. sizes for heaviest duty on big dam jobs. 8-yd. bucket has two 4-yd. compartments with independent dual discharge... pours 4 yds. of concrete in a single operation. Built-in vibrator handles stickiest concrete. Extra-large, double-clam discharge gates can be operated manually, or by compressed air. Gates are easy-opening, rapid-closing... mounted in needle-type, antifriction roller bearings. Husky, welded bucket of ¾" and 1¼" steel plate takes toughest use. Engineer-approved on today's biggest jobs... write NOW!

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Also send facts on: ☐ ½ to 1½ yd. FINGER-TIP CONTROL concrete buckets ☐ 1 to 4-yd. JOHNSON DRAGO concrete buckets

(KOEHRING SUBSIDIARY)

Many A.G.C. Chapters, Branches Report Annual Election Results

• Local Organizations Hold Yearly Meetings

» **REPORTS** of the annual elections of officers among the 108 chapters and branches of The Associated General Contractors of America, Inc., continued to reach *The Constructor* during January. The list included:

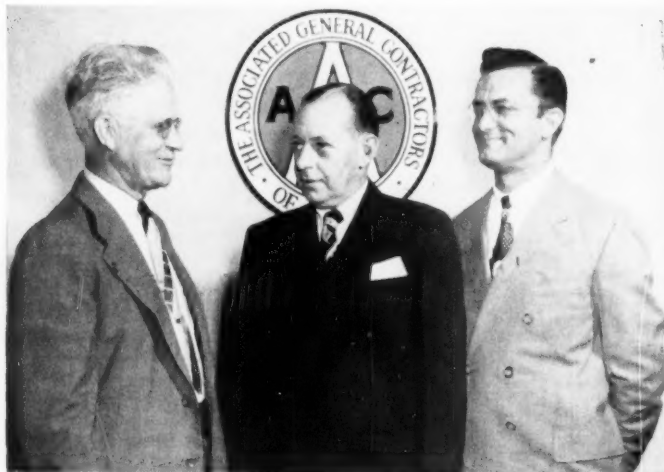
Alabama Branch

C. C. Wilborn of the Birmingham construction company bearing his name was installed last month as president of the Alabama Branch, A.G.C., succeeding R. Hugh Daniel. The branch chose its officers at a December meeting.

First vice president for 1950 is Houston Brice, Jr.; second vice president, W. R. J. Dunn; treasurer, C. E. Hooks. Paul Hunter is chairman of the executive committee. Other members of the committee are John Latham and Mr. Daniel. All are residents of Birmingham.

J. B. Rawls is executive secretary of this A.G.C. unit.

The branch's Mobile Section chose J. F. Pate as president, with Norman J. Walton as vice president and Stanley W. Newman as secretary-treasurer. All are Mobile men.



South Florida Chapter, A. G. C., Officers for 1950

At an annual meeting which attracted representatives of more than 60 member firms and 40 guests including government officials and representatives of other organizations in the industry, the South Florida Chapter last month elected Frank J. Rooney, Miami general contractor, its president.

M. R. Harrison, Jr., also of Miami, was elected vice president, and George Preston of Coral Gables was reelected secretary-treasurer. Paul Hinds is

executive manager of the chapter. In the picture above, Mr. Preston is standing on the left; Mr. Rooney, in the center; Mr. Harrison, on the right.

Directors include Joseph J. Orr, who was president in 1949; James M. Albert, Joe R. Edwards, Edward M. Fleming, Angus Graham, and W. T. Price. All except Mr. Edwards, who is from Coral Gables, are residents of Miami.

A feature of the meeting was a review of the past year by Mr. Orr.

A.G.C. of Amarillo

Russell A. Ramey of the Ramey-Mathis Construction Company is the new president of The Associated General Contractors of Amarillo (Texas), succeeding Walter E. Wirtz.

The new vice president is Forrest Hill and the secretary-treasurer is Maynard Hamilton.

Ed. A. Timmons, the retiring secretary-treasurer, reported that there was a record attendance at the meeting.

Austin Chapter

Leslie F. Crockett of the Leslie F. Crockett Construction Co. was elected president of the Austin (Texas) Chapter, A.G.C. Vice president during the past year, Mr. Crockett succeeds Rex D. Kitchens, who had headed chapter activities during 1948 and 1949.

Other new officers are John Broad, vice president, and J. M. Odom, secretary-treasurer. Mr. Kitchens and Frank R. Rundell were elected directors for a three-year term.

Baltimore Builders Chapter

The Baltimore (Maryland) Builders Chapter, A.G.C., chose John K. Ruff of that city as its president for 1950 when it met in mid-January in Baltimore.

Corbin C. Cogswell, Jr., is vice president, and Ralph W. Young is secretary-treasurer. Herbert J. Leimbach was elected a director for two years, with Perlett L. Davis elected to serve one year in the same capacity. Manager of this chapter is Henry D. Romer. All are Baltimore men.

Welton A. Snow, manager of the Building Contractors' Division A.G.C., was among speakers at the meeting.

Chicago Builders Chapter

Royal L. Brockob, president of the construction company bearing his name, was unanimously elected president of the Chicago Builders Chapter, A.G.C., at its annual meeting in the Illinois city. Mr. Brockob, a director of the Building Construction Employers Association of Chicago, succeeds Allan E. Bulley as president.

E. H. Marhoefer, Jr., was elected vice president and Arthur H. Wells was chosen treasurer. H. M. Stanton continues as secretary-manager of the chapter. Re-elected directors include Mr. Wells, Mr. Marhoefer, Mr. William G. Ross, Davis B. Johnson, and Walter H. Ericsson.

(Continued on page 58)

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to put concrete in the form!

THE MultiFoote gives you a direct pour up to 23 ft. with the standard HighLift Boom (greater heights with longer booms.)

It eliminates intermediate handling equipment and much false work.

It gives you high capacity that comes with a paver.

It brings you crawler mobility that permits working at any point on the job.

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THREE SIZES
27-E Singlemix (Single drum)
34-E Singlemix (Single drum)
34-E Duomix (Double drum)

Ask about the Adnun Black Top Paver, the only paver of its kind that will lay black top, stone and cinders.



Ask for the Booklet "How Would You Do These Jobs?" It shows many of the operations possible with the High-Lift Boom.

FOR EVERY PLACE CONCRETE MUST BE POURED

(Continued from page 56)

Commenting on the annual election *CONSTRUCTION*, monthly publication of the B.C.E.A.C., said:

"The . . . association accomplished much during 1949, and that its activities are recognized by contractors is evidenced by its rapidly growing membership, now the largest in history. Its membership roster includes practically all of Chicago's leading general contractors."

Colorado Building Chapter

The annual meeting of the Colorado Building Chapter in Denver late in December chose James R. Howell of the Denver organization carrying his name as president for 1950. Retiring President George B. Folsom, Jr., also of Denver, was elected director for a five-year term.

New vice president is Gerald H. Phipps; secretary, David A. Olson; treasurer, N. R. Petry. All are Denver residents. Don S. MacDougall, also of Denver, is executive secretary of the chapter.

A.G.C. of Jefferson County

G. Sargl, Beaumont (Texas) general contractor, last month was elected president of The Associated General Contractors of Jefferson County (Texas).

A. L. Hays of Port Arthur, Texas, was chosen vice president, and Jack King of Beaumont was elected treasurer. The chapter's secretary is A. E. Wenham of Beaumont.

A.B.C. of New Mexico

J. R. Brennard, general manager for R. E. McKee, Santa Fe general contractor, was elected president of the Associated Building Contractors of New Mexico at the annual meeting of this unit of The Associated General Contractors of America in Albuquerque in December.

R. B. Clough of Albuquerque is the new vice president and S. E. Whittemore of Albuquerque is secretary-treasurer. Directors include S. V. Patrick and John T. Testuan, both of Albuquerque, and J. L. Wofford of Las Cruces.

Northeastern Florida Chapter

Earl H. Hunter of Jacksonville was elected president of the Northeastern Florida Chapter, A.G.C., at the chapter's recent annual meeting in that city.

(Continued on page 60)

A.G.C. of St. Louis Receives Its Charter

• Two Former Chapters Merged; Pick Elsperman

Seventy-two general contractors in the St. Louis (Missouri) area were joined together into one new chapter of The Associated General Contractors of America, Inc., last month when the A.G.C. of St. Louis received its charter from Assistant Managing Director James D. Marshall.

The new chapter represented a merger of the Municipal Contractors Association of St. Louis and the St. Louis Chapter (Master Builders), both A.G.C. Its membership is engaged in commercial building and heavy and highway work in the St. Louis area.

First officers of The Associated General Contractors of St. Louis, installed by Ellsworth Appel, last president of the Municipal Contractors Association, are President A. R. Elsperman of the G. L. Tarlton Contracting Co., Heavy and Highway Division Vice President J. C. Bodine, Building Division Vice President Herbert N. Jones, Treasurer Howard Bridges, Secretary John P. Soult, Directors L. E. Millstone and C. T. Wilson.

Simultaneously with the merger of

the two chapters, R. L. Murphy, who had been manager of the two associations and prominent in St. Louis and national construction circles for many years, announced his retirement. He was succeeded as manager of the new chapter by Henry S. Till, Jr., who had been his assistant since September 1948 and who previously had been in charge of various construction activities as well as active in public relations and advertising for Anheuser-Busch, Inc.

Mr. Murphy, who was known personally to hundreds and hundreds of contractors throughout the nation because of his work on behalf of the A.G.C., had been active in construction for almost 50 years. He was graduated from Washington University as a Bachelor in Civil Engineering in 1902.

Officers of the new chapter's Building Division, headed by Mr. Jones, include Don C. Musick, P. T. George, and Ralph A. Teich. The officers of the Heavy and Highway Division, headed by Mr. Bodine, include H. C. Schenler, W. J. Campbell, and Fred J. Luth.



A.G.C. Assistant Managing Director James D. Marshall, standing left, hands charter of the A.G.C. of St. Louis to President A. R. Elsperman. Lower left inset: R. L. Murphy. Lower right inset: Henry S. Till, Jr.

a Profit-Winning Combination

MACK TRUCKS

plus the **BALANCED BOGIE**

YOU GET THEM *all* WITH
THE *Balanced Bogie*

POWER DIVIDER: Positive traction regardless of terrain

INTER-AXLE DIFFERENTIAL: No wind-up or overstress of driving parts

RUBBER SHOCK INSULATORS: No spring twist . . . no lubrication

MAXIMUM FLEXIBILITY: No chassis distortion

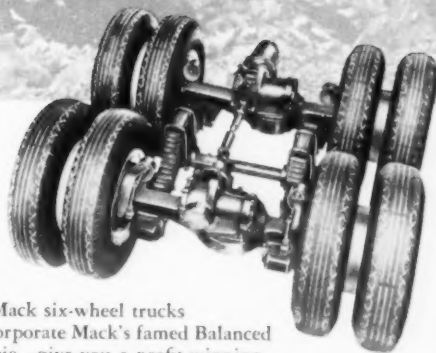
SELF STEERING: No tire scuffing

UNIFORM TIRE LOADING: Longer tire life

UNIFORM BRAKING: Better control
No weight transfer between axles

No bogie hopping, rearing or toe-stubbing

SIMPLICITY OF DESIGN: Achieves minimum maintenance



• Mack six-wheel trucks incorporate Mack's famed Balanced Bogie—give you a profit-winning combination under the most adverse hauling conditions. Here is no makeshift assembly—but a bogie that is a component and integral part of the complete truck unit.

No other trucks—for operation on or off the highway—offer you all the outstanding advantages you get with the Balanced Bogie in Mack six-wheelers.

Check them for yourself. They're your assurance of trouble-free, uninterrupted schedules; lower costs and increased profits. For the full story, see your nearest Mack branch or distributor.

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modernize with

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Mack Trucks, Inc., Empire State Building, New York 1, New York. Factories at Allentown, Pa.; Plainfield, N. J.; New Brunswick, N. J.; Long Island City, N. Y. Factory branches and distributors in all principal cities for service and parts. In Canada: Mack Trucks of Canada, Ltd.

8050

(Continued from page 58)

Other officers chosen by this chapter are James H. Small, vice president, and Earl C. Kenyon, secretary-treasurer. Both also have their businesses in Jacksonville.

Northwest Florida Chapter

The Northwest Florida Chapter, A.G.C., chose William Soule of Noonan-Soule, Inc., Pensacola as its president for 1950 at its recent annual meeting.

J. Bruce Olney is vice president of the chapter for the year; W. O. Chavis, treasurer. Mr. Olney and Mr. Chavis also have their businesses in Pensacola.

A.G.C. of Massachusetts

Moses Slotnik, president of the J. Slotnik Co., Boston, was re-elected president of The Associated General Contractors of Massachusetts at its annual meeting in that city late in December.

Vice president of the chapter for 1950 is Charles B. Solomon of the George B. H. Macomber Co., Boston; secretary, Stanley D. Porter of Watertown; treasurer, Romeo E. Bossi of Boston. Allan E. Gifford, also of Boston, is executive secretary of the A.G.C. branch.

Members chosen for the executive committee this year include Samuel Suskin of Boston, William F. White of Newton, and Arnold W. Conti of Lynn.

Mr. Gifford reported that the meeting was well attended and that out of town guests included two representatives of the General Contractors Association of Lowell, Massachusetts. The latter is not an affiliate of the A.G.C.

Mid-Continent Pipe Line Chapter

Ray L. Smith of the contracting firm bearing his name in El Dorado, Kansas, is the new president of the Mid-Continent Pipe Line Chapter, A.G.C., which has its headquarters in Dallas, Texas.

L. H. Fayot and E. G. Morrison of Austin, Texas, are the chapter's vice presidents. N. A. Saigh of San Antonio was elected treasurer. Richard A. Gump of Dallas is executive secretary.

Directors elected for one year were T. A. Hester of Dallas, who was president of the chapter in 1949; R. A. Conyes, Ray L. Smith of El Dorado, James P. Neill of Bartlesville, Okla.

Southern California Chooses Donald Reed

• Promote Contract System, New President Says



Donald E. Reed

It is the duty of all within the industry to utilize every means possible to preserve the competitive bidding

contract method in construction as one way of fighting rapidly developing socialistic trends. Donald E. Reed, new president of the Southern California Chapter, A.G.C., said last month on the occasion of his election.

Mr. Reed is the son of a contractor, Harold E. Reed, and his firm, the Stanton Reed Co., Los Angeles, long has been active in A.G.C. affairs. His election was unanimous. Chosen to serve with him were Vice Presidents R. V. Edwards, B. M. Lauthere, Jr., and Claude A. Fisher, and Treasurer Spencer Webb.

Filling vacancies left by chapter directors whose terms were expiring were Paul Spencer, C. J. Bakker, C. L. Parkhill, T. M. Page, and Mr. Webb. Directors representing associate members are H. W. Sayre and Alex Kostyzak, both re-elected.

The Stanton Reed Co., which started business in Los Angeles in 1912, specializes in large buildings.

homa; F. E. Stanley of Tulsa, Oklahoma; and C. S. Foreman of Kansas City, Missouri. Mr. Stanley and Mr. Foreman were re-elected.

Directors elected for two years were Mr. Fayot, E. J. Mahoney of Mt. Pleasant, Michigan; Mr. Morrison, Mr. Saigh, and Robert Thomas of Fort Worth, Texas.

A.B.C. of Mississippi

The Associated Building Contractors of Mississippi elected W. G. Wetmore, Jackson general contractor, its president for 1950 at the recent annual meeting.

Vice president for the coming year is J. H. Campbell and secretary-treasurer is W. W. Howie. The manager of this A.G.C. branch is Junior O'Hara. All are residents of Jackson.

A.G.C. of New Hampshire

Parker H. Rice of the Manchester Sand, Gravel & Cement Co. was elected president of The Associated General Contractors of New Hampshire, one of the newer of the A.G.C. units, at that branch's annual meeting in Keene, New Hampshire.

Other new officers are Robert A. Foster of Concord, vice president, and

Frank W. Whitecomb of North Walpole, treasurer. John Jacobson, Jr., of Manchester was re-elected secretary.

Elected to the executive committee were Dale Nelson of Hanover and Kenneth E. Curran of Littleton.

Philadelphia Chapter

Harry J. Lauter of the Lauter Construction Co., Philadelphia, was elected president of the Philadelphia Chapter, A.G.C., at its annual meeting.

First vice president is J. Russell Cullen and James K. Wark is the second vice president. The treasurer is Thomas S. Keefer. All are Philadelphians.

The chapter's new secretary is Harry P. Taylor.

San Diego Chapter

B. O. Larsen, San Diego (California) general contractor, last month was for the second time elected president of the San Diego Chapter. He previously had held this post in 1934.

Walter H. Barber of La Mesa was elected vice president. Retiring President R. S. Seabrook of Chula Vista became a member of the chapter's

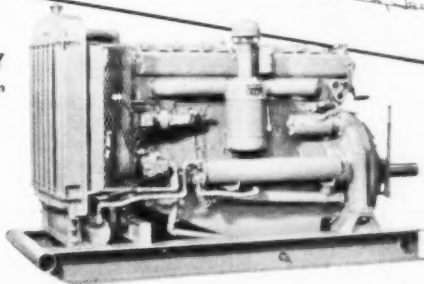
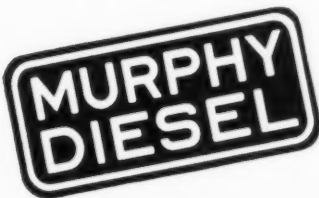
(Continued on page 62)

"...good fuel economy...instantaneous response..." make MURPHY DIESELS popular with Nello L. Teer Co.



Now-a-days, any contractor perks up his ears when he hears "fuel economy"...and that's just what Murphy Diesel offers you. *The Murphy Diesel uses less fuel per horsepower hour than any other diesel in its power range.* And the Murphy Diesel gives you this unequalled fuel economy without sacrificing other desirable characteristics such as dependability, ease of control, instantaneous response and heavy duty output. But don't take our word for it—ask your friends who own Murphys. And then ask your Murphy Diesel Dealer to give you the whole story or write direct.

MURPHY DIESEL COMPANY
5333 West Burnham St., Milwaukee 14, Wisconsin



Murphy Diesel Engines and Power Units, 40 to 220 H.P.; Generator Sets, 60 to 133 K.W.

(Continued from page 60)

board of directors. M. S. Mathias of San Diego is manager of the chapter. Directors include Mr. Larsen, Mr. Barber, William C. Chambers, Robert M. Golden, and James S. Bullied.

Shreveport Chapter

One of the principal projects of the Shreveport (Louisiana) Chapter, A.G.C., in the year ahead will be to obtain new and larger headquarters. L. C. Allen of the Allen Construction Co., said when he was installed as 1950 chapter president last month.

New vice president is W. A. McMichael, Jr., with James F. Welch, treasurer and A. J. LeVasseur, secretary. C. H. Rollins is executive secretary. All are in Shreveport. W. A. Gray was 1949 chapter president.

Mr. Gray reviewed the chapter's activities during the last year and Mr. Allen took a look at prospects in the year ahead. He said there were indications construction costs had been stabilized which would more than likely result in more building during the coming year.

Highway Construction Industry of South Dakota

The Highway Construction Industry of South Dakota, A.G.C., at its recent annual meeting in Aberdeen, chose H. E. Emme of Rapid City as its president for 1950.

P. A. Bradbury of Aberdeen is vice president for the year ahead, and J. L. Materi of Rapid City is secretary-treasurer. W. S. Hannan, Sr., is chapter secretary.

Directors include Mr. Emme, Mr. Bradbury, Mr. Materi, and J. L. Healy. R. S. Sweetman, J. H. Beckman, all of Sioux City; P. C. Lee of Rapid City, and C. D. Bartholow of Huron.

Southern Illinois Builders Association

The Southern Illinois Builders Association, A.G.C., which has its headquarters at Granite City, last month re-elected all three of its principal officers.

Charles A. Rook of Alton is again president; Theodore A. Bauer of Belleville, again vice president; Carl M. Lomax of Granite City is again secretary-treasurer.

New directors are A. C. Hoffman of Belleville, J. E. Latta of St. Louis, Missouri; R. J. Moore of East St. Louis, Illinois. Re-elected directors

N. California Hears 'Much Work Ahead'

• Banker, State Official Speak; Directors Elected

Building activity in the State of California next year will reach from 2.3 to 2.6 billion dollars and the state's two-year road-building program, ending July 1, 1951, will amount to more than \$129,000,000, members of the Northern California Chapter, A.G.C., heard at their 31st annual meeting at the Palace Hotel in December. The Palace this month will be the site of the 31st annual convention of the national A.G.C.

New directors elected at the meeting were Nelson H. Chick, Leandro Jens Harms, Sacramento; James M. Smith, San Francisco; Ray D. Smith, Richmond, and Charles Frederickson, Emeryville. Gordon H. Ball of N. M. Ball Sons, Berkeley, presided over the meeting as chapter president. Winfield H. Arata of San Francisco is secretary-manager of the A.G.C. unit.

Banker, State Official Speak

E. A. Mattison, executive vice president of the Bank of America, gave the 2.6 billion building forecast for 1950 in California, and the state's director of public works, Charles H. Purcell, told of the two-year highway program. Mr. Mattison's estimate was based on the rapid growth of population on the West Coast.

"California, Oregon and Washington will have a population of 20 mil-

lion by 1960 and 25 million by 1975," Mr. Mattison predicted, adding that this area would probably expand faster than any other in the nation. The state's banks would be fully capable of financing construction needs, he asserted.

Mr. Purcell cited increased competition, increased labor productivity, easing of materials, and some drops in material prices in pointing out that California's highway construction cost index had dropped 13.3 per cent from the postwar peak it reached in mid-1948. He said \$66,000,000 of the proposed \$129,000,000 program would be started before July 1, 1950.

Trace Chapter's Growth

President Ball and Secretary-Manager Arata told of the growth of the chapter and the national association, of the strengthening of ties between contractors and other segments of the industry through joint cooperative committees, and of the battle against force account and day labor. Both saw a good year ahead in 1950. The meeting saw considerable emphasis on labor relations and on the affiliated unit program with the Corps of Engineers, Department of the Army.

A banquet on the second and final night of the gathering was a highlight of the chapter's meeting.

are H. H. Hall of East St. Louis, Joseph C. Ganshinitz of East St. Louis, John J. Keeley of East St. Louis, Charles A. Lybarger of Granite City, Edgar M. Stephens of Cairo, and George Wheatley of Dupon, all in Illinois.

Spokane Chapter

Nels Degerstrom, a charter member of the Spokane (Washington) Chapter when it was chartered by The Associated General Contractors of America 29 years ago, was again re-elected president of that chapter at its recent annual meeting in Spokane.

Elected as vice presidents were Jack Clifton and George Sebeck; as directors, Roy L. Blair and Leonard Parr. Verne Warren is chapter secretary-treasurer.

The annual meeting got word that the chapter membership now was at its highest peak in history, with several

applications waiting for action at the next membership meeting.

Tri-Cities (Tennessee) Chapter

W. R. Sproles of Kingsport, Tennessee, was elected 1950 president of the Tri-Cities Chapter, A.G.C., at the chapter's recent annual meeting in Kingsport.

James E. Green of Johnson City, Tennessee, was chosen vice president; H. C. Meeks, Kingsport, secretary; and J. R. Denny, Johnson City, treasurer.

Rural Electrification Administration officials estimate that between one and two billion dollars in construction will be involved in the rural telephone program which was approved by the last session of the 81st Congress. REA recently issued a pamphlet describing how loans would be handled under the new program.

NOW

A Tractor-Mounted All-Hydraulic Backhoe!

Here's a great new profit-making tool for contractors, cities, public utilities and towns. The New Oliver-Ware Hydro-Trencher is an all-hydraulic backhoe mounted on Oliver Industrial "77" or "88" Tractors. It's a smooth-acting, simply operated unit that will do a job comparable to much higher priced conventional backhoes . . . outperform many!



A Swing Loader Bucket Attachment is available for use with the Oliver-Ware Hydro-Trencher and can be installed in a few minutes.

THE OLIVER CORPORATION

Industrial Division: 19300 Euclid Avenue, Cleveland 17, Ohio
A complete line of Industrial Wheel and Crawler Tractors



Note these profit-making features:

SIMPLE OPERATION Smooth, finger-tip control hydraulic operation eliminates operator fatigue. Any man can operate this machine immediately . . . specially trained operators are not required.

SAFETY No cables to break . . . no slipping brakes. Safety feature in hydraulic system reduces wear and tear on engine. Engine speed seldom has to go beyond idling.

COMPACTNESS Unit can work in areas where truck and crawler mounted units cannot work.

MOBILITY Tractor-mounted unit moves easily and quickly from job to job under its own power and is ready to dig on arrival.

STABILITY Individually controlled hydraulic outriggers allow operation from a level position . . . hold tractor in place.

VERSATILITY Digs in any kind of ground . . . over 10 feet deep at speeds comparable to any conventional backhoe. Hydraulic controls give boom down pressure for fast digging . . . a full bucket every time.

For the complete story on this new, profit-making unit, mail the coupon.

THE OLIVER CORPORATION,
Industrial Division
19300 Euclid Ave., Cleveland 17, Ohio

Gentlemen:

Send me the facts on the new Oliver-Ware Hydro-Trencher.

Name.....

Company.....

Address.....

City..... State.....

BID OPENING DATES OF LARGE PROJECTS

| OPENING DATE | AGENCY | PROJECT |
|--------------|--|--|
| Feb. 16 | Corps of Engineers San Francisco Dist. | 500-bed NP VA hospital, Salt Lake City, Utah. |
| " | Corps of Engineers Vicksburg, Miss., Dist. | Inv. No. CIVENG 22-052 50-110. Articulated concrete mattress. Greenville, Miss., and Vidalia, La. |
| " | Corps of Engineers Galveston, Texas, Dist. | Inv. No. CIVENG 41-243 50-139. Outlet works and service bridge, Belton Dam, Leon River, Bell County, Texas. |
| Feb. 17 | Corps of Engineers Los Angeles, Calif., Dist. | Inv. No. CIVENG 04-353 50-24. San Diego River-Mission Bay Floodway, Pacific Ocean to Highway 101, Calif. |
| " | Corps of Engineers Tulsa, Okla., Dist. | Completion of embankment, Tenkiller Ferry Dam, Illinois River, Okla. |
| Feb. 21 | Corps of Engineers Vicksburg, Miss., Dist. | Inv. No. CIVENG 22-052 50-103. Enid Dam outlet structure, Enid, Miss. |
| " | Veterans Administration Washington 25, D. C. | Kitchen and dining hall, Bldg. No. 300, VA Center, Los Angeles, Calif. |
| Feb. 23 | Atomic Energy Comm., Santa Fe Operations Los Alamos, N. Mex. | Construction of 104 single and multiple dwelling units, consisting of 182 individual dwelling units. |
| " | Corps of Engineers Walla Walla, Wash., Dist. | Inv. No. CIVENG 45-164 50-80. Four 73,684 KVA generators for McNary Dam. |
| " | Corps of Engineers Los Angeles, Calif., Dist. | Inv. No. CIVENG 04-353 50-27. Spillway and east embankment, Whittier Narrows Dam, San Gabriel River, Calif. |
| Feb. 28 | Corps of Engineers Memphis, Tenn., Dist. | Inv. No. CIVENG 40-041 50-75. 44,900 lin. ft. bank protection. |
| March 8 | Corps of Engineers St. Louis, Mo., Dist. | 544-bed NP addition, VA Hospital, Jefferson Barracks, Mo. |
| March 15 | Atomic Energy Comm., Santa Fe Operations Los Alamos, N. Mex. | Inv. No. 291 50-46. 80-bed hospital building; 3-story concrete. |
| " | Corps of Engineers Portland, Ore., Dist. | Clearing, grading; relocation Southern Pac. RR and Hwy. No. 58. |
| " | Corps of Engineers New Orleans, La., Dist. | Earth embankment, Texarkana Dam, Bowie County, Texas. |
| March 17 | Corps of Engineers Seattle, Wash., Dist. | Inv. No. CIVENG 45-108 50-51. Four 67,368 KVA AC generators, Chief Joseph Dam, Columbia River, Wash. |
| March 28 | Veterans Administration Washington 25, D. C. | 500-bed GM VA Hospital, Cincinnati. |
| April 7 | Bureau of Yards and Docks Washington 25, D. C. | NOY 18953, SPECS. 22747. Electrical Receiver Terminal Equip. Bldgs., Naval Communications Sta., Wahiawa, Hawaii. |
| April 28 | Corps of Engineers Garrison District Bismarck, N. Dak. | Stilling basin and powerhouse foundations, Garrison Reservoir Proj., Missouri River, N. Dak. |

U.S. Agencies Seek Aides

Two federal agencies, with which general contractors deal regularly, last month announced they were seeking technical aides because of the amount of construction work they were undertaking under current programs.

The Bureau of Reclamation will hold examinations in February offering opportunities to student engineers for probational engineering appointments in the 17 western states in which it operates. These engineers will rotate among the bureau's various jobs to gain diversified experience.

The Rural Electrification Administration program announced that, because of the new telephone program and the expansion of its power loans program, it was seeking new employees with technical training and experience. Experienced telephone specialists are especially needed.

The personnel directors of the two organizations and the United States Civil Service, all at Washington 25, have details of the job openings.

NBS Book on Electricity

The National Bureau of Standards has issued a new handbook, *Installation and Maintenance of Electric Supply and Communication Lines—Safety Rules and Discussion*.

This handbook combines the code rules on electric lines (Part 2 of the National Electrical Safety Code, NBS Handbook H32) with the discussion of those rules (NBS Handbook H39). In addition, the handbook includes three appendices which present certain technical data useful in making computations of the strengths of supporting structures and in determining crossing clearances.

In some cases, the handbook suggests engineering shortcuts which give approximately the same results as formulae covered in the code.

Thus, the new book (H43) combines code rules, discussion and related engineering data in a single volume for the convenience of design engineers, construction supervisors, linemen and others who use this section of the code. The book—386 pages, 29 tables, 20 figures—is available from the Government Printing Office, Washington 25, D. C.

STANDARD FORMS

COVERING IMPORTANT CONTRACTING PROCEDURE



Prepared by The Associated General Contractors of America and Cooperating Bodies

| Order No. | MANUALS | Per Copy | Per Dozen | Per 100 |
|-----------|--|----------|-----------|----------|
| 1. | A.G.C. Manual (Contains documents listed below: Nos. 3-30, inclusive, and Nos. 34, 35, 36, 36A, 37, 38) | \$5.00 | \$50.00 | |
| 2. | Accident Prevention Manual (Revised and enlarged 1949) | 3.00 | 30.00 | \$210.00 |
| 2b. | Good Public Relations for the General Contractor | .50 | | 45.00 |

CONTRACTS

| | | | | |
|-----|--|-----|------|-------|
| 3. | Standard Contract for Engineering Construction issued by the Joint Conference on Standard Construction Contracts | .25 | 2.75 | 20.00 |
| 4. | Standard Building Contract of the American Institute of Architects—Revised 5th Edition | .50 | | 47.50 |
| 5. | Subcontract form—American Institute of Architects—Revised 5th Edition | 10 | | 9.50 |
| 7. | Standard Government Contract and Instructions to Bidders | 10 | .50 | 4.00 |
| 8. | A.G.C. Cost Plus a Fee Contract | 10 | .50 | 2.50 |
| 9. | A.I.A. Cost Plus a Fee Agreement between Contractor and Owner | 10 | | |
| 11. | Equipment Rental Agreement | 10 | .50 | 3.00 |
| 12. | A.G.C. Proposal Form | 10 | .50 | 3.00 |

ESTIMATING AND ACCOUNTING

| | | | | |
|-----|--|------|-------|-------|
| 16. | Building Estimate Summary | 10 | .50 | 3.00 |
| 17. | Job Overhead Summary | 10 | .50 | 3.00 |
| 20. | Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949) | 1.00 | 10.00 | 65.00 |
| 21. | Equipment Record—Bond paper | 10 | .50 | 3.00 |
| 22. | Equipment Record—Cardboard | 10 | .50 | 3.50 |

INVESTIGATION OF BIDDERS

| | | | | |
|-----|--|-----|------|-------|
| 24. | Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover | | | |
| | Engineering Construction (For Qualifying Before Bidding) | .20 | 1.80 | 12.00 |

| Order No. | INVESTIGATION OF BIDDERS (Continued) | Per Copy | Per Dozen | Per 100 |
|-----------|--|----------|-----------|---------|
| 25. | Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover | | | |
| | Building Construction (For Qualifying Before Bidding) | .20 | \$1.80 | \$12.00 |
| 26. | Standard Questionnaires and Financial Statement for Bidders—Complete in Cover | | | |
| | Engineering Construction (For Qualifying After Bidding) | .20 | 1.80 | 12.00 |
| 27. | Standard Questionnaires and Financial Statement for Bidders—Complete in Cover | | | |
| | Building Construction (For Qualifying After Bidding) | .20 | 1.80 | 12.00 |
| 28. | Financial Statement and Questionnaire for Credit Transactions | .20 | 1.80 | 12.00 |

MISCELLANEOUS

| | | | | |
|------|---|----|-----|--|
| 30. | The Functions of a General Contractor | 10 | .75 | 6.00 |
| 34. | A.G.C. Governing Provisions | 10 | .50 | 3.00 |
| 35. | A.G.C. Code of Ethical Conduct | 10 | .50 | 3.00 |
| 36. | Concrete Mixer Standards | | | Single copies—no charge; quantity prices on application. |
| 36a. | Contractors' Pump Standards | | | |
| 37. | A.I.A. Standard Form of Arbitration Procedure | | | |
| 38. | Suggested Guide to Bidding Procedure | | | |



FOR A.G.C. MEMBERS ONLY

A.G.C. EMBLEM

List of Styles and Prices on request.

SIGNS AND SEALS

| | | |
|-----|--|-----|
| 40. | A.G.C. Metal Seal (red and black) 10" dia. | .40 |
| 41. | A.G.C. Decalcomania Seal (red and black) | |
| | a. 10" dia. | .20 |
| | b. 5" dia. | .10 |

Metal Seals and Decals: 20% discount for orders of more than 50; 40% discount for orders of 200 or more.

43. A.G.C. SOCIAL SECURITY FORMS

Form SS1: Application for Employment;
Form SS2: Employees' History Record;
Form SS3: Employees' Employment and Earnings; Form SS4: Payroll. List of prices and styles will be furnished to A.G.C. members on request.

USE THE CONVENIENT COUPON TO PLACE YOUR ORDER

| Order No. | Amount | Cost | | | | | | | |
|-----------|--------|------|-----|--|--|------|--|--|---|
| 1. | | | 9. | | | 26. | | 40. | |
| 2. | | | 11. | | | 27. | | 41a. | |
| 2b. | | | 12. | | | 28. | | 41b. | |
| 3. | | | 16. | | | 30. | | 43. | Price List and Samples <input type="checkbox"/> |
| 4. | | | 17. | | | 34. | | Price List and Styles of Emblem <input type="checkbox"/> | |
| 5. | | | 20. | | | 35. | | | |
| 6. | | | 21. | | | 36. | | | |
| 7. | | | 22. | | | 36a. | | | |
| 8. | | | 24. | | | 37. | | TOTAL COST | |
| | | | 25. | | | 38. | | | |

Make Checks payable to CONSTRUCTION FOUNDATION, A.G.C., Munsey Building, Washington 4, D. C.

Gentlemen: Enclosed find check for \$_____ for which please send materials as ordered by number herewith.

Name _____ Address _____

City _____ Zone _____ State _____

Feb. 1955

Aggregate Spreader—Jaeger Machine Co., Columbus 15, Ohio. Self-propelled spreader is designed to lay all base and surface aggregates, free-flowing bituminous mixtures and plant-mixed stabilized soils. Four-wheel drive is always on subgrade or rolled course, never on newly laid material. Machine lays any size of aggregate up to 4" stone, in thicknesses up to 10". Strike-off screed is carried by long straight-edge runners. Screed is ad-



Jaeger aggregate spreader

justed from top by handcrank for any desired thickness. Spreader is adjustable for laying materials in any width from 8' to 12½'. For widths from 10' to 12½', hand-operated crank extends transverse telescopic shaft between straight-edge runners and inserts increase screed width in increments of 6". For widths from 10' to 8', block-off plates are provided. Blender wings are provided at ends of strike-off screed to blend joint between adjacent lanes. Unit has 2-ton hopper. Automotive transmission and Continental gasoline engine offer 12 to 100 f.p.m. forward speeds and 1½ to 3½ m.p.h. reverse speeds. Unit is self-transporting. Hydraulic ram lifts screed and runners up to 5".

Engine—Federal Motor Truck Co., Detroit 9. Two improvements have been incorporated in Series 60 engine: rotators have been added to engine and turn valves slowly during operation to provide more even seating and cooler

running. Interchangeable precision copper lead alloy bearings with electrically coated inside of lead and tin have replaced bronze-backed cadmium nickel bearings. Design of bearings is such that complete assembly can be removed without disturbing crankshaft. Connecting rod bearings have been changed from cadmium nickel to new copper lead type.

Steel Doors—Truscon Steel Co., Youngstown 1, Ohio. New line of residential interior steel doors include swing type door and frame for "between-room" use and 2-sliding panel closet door. Swing doors are of 1½" thickness and are available in vertical flush panel design in one height of 6'8" and in 5 width dimensions from 1'8" to 3'0". Choice of 1½" or 6½" depth frames and 4 types of Yale and Towne type D brass lock-sets are offered. Sliding closet doors are available in 2 standard sizes: 4'0" x 6'8" and 5'0" x 6'8". Each door is equipped

Advanced TILT-DECKS by ROGERS

CAPACITIES

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TON



Through repeated satisfactory experiences users have come to expect greater value in Rogers trailers; and they get it assuredly in these new tilt deck models.

They embody extra strength — easier loading — improved haulability and absolutely reliable braking.

But the new feature appreciated by all, is the hydraulic ram which controls and cushions the deck movement when loading or unloading heavy equipment.

There are sizes for all needs in three types — two wheel on a single axle — four wheel on tandem axles — and four dual tire wheels on tandem axles.

Write for literature and learn how these trailers can effect savings in hauling many kinds of equipment — faster and more economically.

ROGERS TRAILERS

EXPERIENCE builds 'em



PERFORMANCE sells 'em

ROGERS BROTHERS CORPORATION, 223 Orchard St., ALBION, PA.

Featuring
HYDRAULIC
CUSHIONING
OF DECK

Shunk

Superior Quality

BLADES

AND CUTTING EDGES

For any make of machine
Motor Graders, Motor
Graders, Scrapers, Dozers,
Backhoes, Backhoes,
Wagon Scrapers, Trail
Builders, Trail Blasters,
Corryvick, etc.

CUTTING EDGES
WEARING FEET
BACK SCOPERS
EXTENSION BLADES
MOLDSBOARDS
and
SCARIFIER TEETH

50 years of manufacturing blades has developed for you a special steel, melted through our own mills and forged at the edges to give that extra wearing quality you need.

All widths, lengths, and thicknesses — stock and ready to fit your machine.

Consult your interjection, only recognized Blade Specialists. Write for special bulletins, giving type and name of machines you operate — get set for Blades today!



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MANUFACTURING COMPANY

Established 1854

BUCYRUS, OHIO

NEW EQUIPMENT • MATERIALS

with 2 ball bearing rollers, dense felt top guides and rubber bumpers at jamps. Finger pulls are fitted into each panel at factory.

Tournapull—R. G. LeTourneau, Inc., Peoria, Ill. "C Roadster" Tournapull is now available with either General Motors 6-71, Cummins HBI-600 or Buda 6-DC-844 engine. "C Roadster" is now built for operation at higher top speed—30 m.p.h. in 5th gear. It has 4 working speeds previously available, ranging from 3.0 to 19.8 m.p.h.

Trucks—Ford Motor Co., Dearborn, Mich. 1950 Ford line offers more than 175 models featuring 21 engineering, design and manufacturing advancements. They are powered by Ford 226 cu. in., 95 h.p. 6-cylinder truck engine; 239 cu. in., 100 h.p. V-8; 337 cu. in., 145 h.p. V-8; and new 254 cu. in., 110 h.p. 6, which has 4-speed synchro-silent transmission as standard equipment. F-7 models have 15" x 5" rear brakes with aluminum shoes; they have double cylinder and self-energizing hydraulic actuation. F-8 models have full air brakes of 2-shoe type; rear brake size is 16½" x 5½". In F-5 and F-6 series, 176" wheelbase is now available for bodies in 14' range. In F-7 and F-8 series, there is 147" wheelbase model for tractors and dump trucks and 178" wheelbase for 14' bodies. F-8 has single-speed rear axle as standard equipment; 2-speed axle is available. Hypoid single-speed rear axle is offered for F-6 series. All models have gyro-grip clutch, roll action steering and quadrex rear axles. F-7 and F-8 series have double channel frame. Gross vehicle ratings for 1950 line range from 4,700 lbs. in F-1 to 22,000 lbs. in F-8 straight truck and 39,000 lbs. when used with tractor and trailer.

Power Units—Ford announces new line of 5 models available in open or enclosed versions. They are offered complete with radiator, instrument panel and S.A.E. or Ford type housings and are equipped with skid-type mountings. They may be ordered with or without clutch, power take-off and 3, 4 or 5-speed transmissions. Line includes 2 6-cylinder models, 2 V-type 8-cylinder models and one 4-cylinder model. Piston displacement is 120 cu. ins. in 4-cylinder model; 226 and 254 cu. ins. in 6-cylinder models; 239 and 337 cu. ins. in 8-cylinder models.

TWO GREAT NAMES

HELP SELL YOUR PRODUCT,
WHEN IT'S **CONTINENTAL-POWERED**

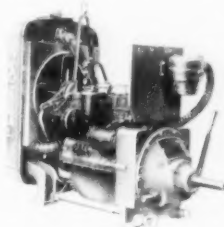


TWO great names—your company's and Continental Motors'—create acceptance for equipment with Continental Red Seal power. And with competition for sales as keen as it is today, more and

more builders in the construction machinery field are learning what this means. They are finding that the Red Seal trademark packs real selling punch, because Red Seal engines command universal respect. There never was a better time than NOW to team up with the recognized leader in the field of specialized power for the construction industry. Continental Motors engineers will help you choose from the broad Continental line exactly the right engine for your job.

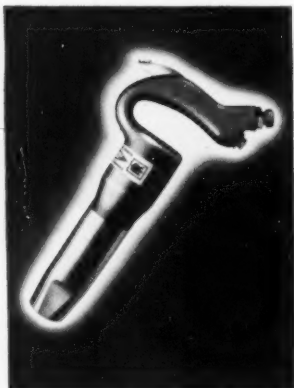
Model F-162 Closed Power Unit

Performance proved in millions of hours of service on countless types of jobs. Four-cylinder, L-head, completely enclosed in all-weather housing. Delivers 36 h.p. at 1800 r.p.m. Write for special folder PF-47-162.



Continental Motors Corporation
MUSKEGON, MICHIGAN

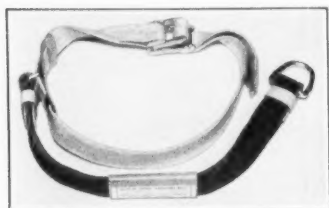
Chipping Hammers—*Ingersoll-Rand Co., 11 Broadway, New York 4.* "Controlled Power" chipping hammer line is offered in 15 power sizes with 5 basic hammer sizes. Each basic



Ingersoll-Rand "Controlled Power" chipping hammer

hammer size is available in normal-cut, extra-cut or super-cut type. Pistons and other parts subject to wear are plated with "Iramet" hard surfacing process. Three types of handles are available, all of which lock in place in positive manner. Front-end design allows more chisel "play-off."

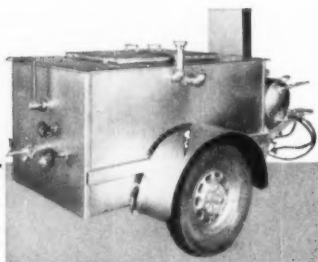
Safety Belt—*The Rose Mfg. Co., 1731 Arapahoe St., Denver 2.* "Safe-Hi" belt features shock absorber extension made of "Unolyn," member of nylon family. It has ability to elon-



"Safe-Hi" shock absorber belt

gate, without rebound, to several times its original length, so that it stops falling man without violent jerk. Steel cable lifelines may be used safely with shock absorber, manufacturer states. Draw load and length of "Unolyn" extension are scientifically determined to get full deceleration within few feet to minimize hazard of man striking girder or any projection.

Slide Rule—*Pickett & Eckel, Inc., 5 S. Wabash Ave., Chicago 3.* "Pickett 800" 10" log log slide rule uses new double or "back-to-back" scale. Six log log "mated scales" are placed together to make 3 double scales with numbers and their reciprocals back-to-back. C scales have been placed on both sides. DI scale is included. It also bears new ST scale which is true average of S and T scales for angles up to 5.73°. All scales are decimally divided, coordinate front and back, are full unit length and refer to C and D scales. Rule is 12 1/8" x 1 1/2" x



White Oil Jacketed Kettles for Heating Elastic Joint Filler

Joint filling compounds containing rubber, for elasticity, must have indirect heat application. They melt at 375° and must not exceed 425°.

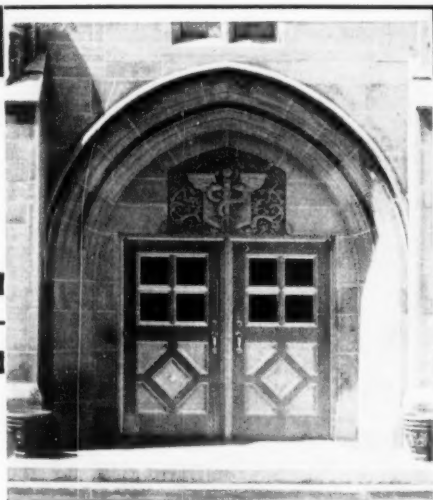
White Model F-10 kettles maintain this temperature accurately by an oil jacket which transfers heat to the compound.

White kerosene burners are safe and dependable, easily controlled. Hand operated agitator. Insulated housing.

Other models for pavement maintenance have FIRE-PROOF tops. Hand or engine-driven sprayers. Made in several sizes.

Write for Circulars

Elkhart **White Mfg. Co.** Indiana



Always Get NEWMAN Bids

Depend on NEWMAN "firm bids" for your ornamental non-ferrous work. You'll be certain of quality installations which will satisfy everybody concerned. That's what happened on the University of Tennessee College of Dentistry job we did for S & W Construction Co., and on every other job, too. THANK YOU . . . for writing us for file data on tablets, letters, railings and door hardware . . . and for listing us to receive your request for bids. Write us today.

NEWMAN BROTHERS, Inc.

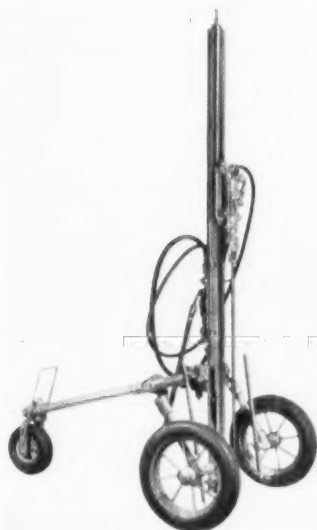
"Famous For Four Quality Since 1882"

675 West Fourth Street

Cincinnati 3, Ohio

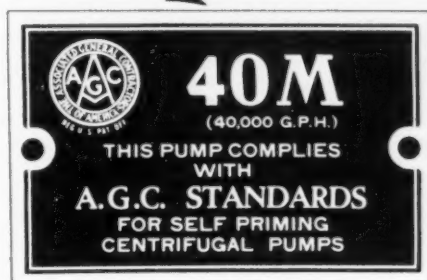
5' 32". Magnesium alloy body weighs less than 1 oz. Instruction manual is furnished.

Drills—Chicago Pneumatic Tool Co., 6 E. 44th St., New York 17. New G-150 light-weight wagon drill handles sinker drills of 55 lb. class or 3" drifters. Standard drill carriage is of channel construction and provides 6" steel change; special longer changes are available. Rotary-type air motor has graduated control, worm gear transmission and feed chain. Control is such that drill will not plunge if steel breaks. Chassis is of tubular construction and is so designed that feed motor can be used to raise frame from minimum to maximum height. Feed and drill control can be adjusted quickly to any position along drill carriage. It is equipped with ball bearing wheels with pneumatic tires. Fully described in Bulletin SP-3010, available from manufacturer. New CP-59 55 lb. class sinker drill is recommended for holes up to 25'. It features 4-in-1 backhead, permitting quick change-overs to plain dry, blower dry, wet or air-water operation. Change is made by removing plug and changing water or air valve assemblies. Newly designed valve has new lubrication system, replaceable bronze chuck nut and cylinder bushing liner. Bulletin SP-3009, available from manufacturer, describes drill fully.



Chicago Pneumatic G-150 wagon drill

ACCEPTED STANDARDS



You always know what a pump will do when it carries this plate

The members of the pump bureau are competing for your business in the best American tradition of free enterprise. However, in the interest of the contractor, they have been able to establish certain basic standards for contractors' pumps. These standards are approved by A. G. C. and guaranteed by the manufacturers listed below because they give the user an assurance of performance that he needs to properly plan his work. These accepted standards give contractors a more certain tool to use in building a greater America.



CONTRACTORS PUMP BUREAU

(Established 1936) Affiliated with . . .
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.
Munsey Building, Washington 4, D. C.

CONSTRUCTION MACHINERY CO.
Waterloo, Iowa

THE GORMAN-RUPP CO.
Mansfield, Ohio

THE JAEGER MACHINE CO.
Columbus, Ohio

MARLOW PUMPS
Ridgewood, N. J.

NOVO ENGINE CO.
Lansing, Michigan

RICE PUMP & MACHINE CO.
Milwaukee 3, Wisconsin

STERLING MACHINERY CORP.
Kansas City, Mo.

WORTHINGTON PUMP & MACH. CORP.
Holyoke, Mass.

LEYMAN MFG. CORP.
Cincinnati 2, Ohio

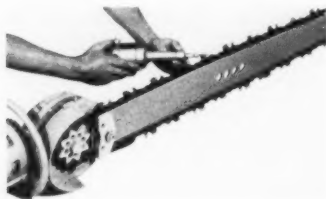
BARNES MANUFACTURING CO.
Mansfield, Ohio

CARVER PUMP CO.
Muscatine, Iowa

C. H. & E. MANUFACTURING CO.
Milwaukee, Wisconsin

CHAIN BELT CO.
Milwaukee, Wisconsin

Chain Saw Sharpener—*Dumore Co., Racine, Wis.* Hand grinder is equipped with 1 10 h.p. motor and runs on 115V AC or DC. Unit features light weight aluminum casing, forced-fan cooling, handy operating switch. It is furnished in sturdy carton with 4 grinding wheels.



Dumore chain saw sharpener

Crushers *Pioneer Engineering Works, Minneapolis 13.* Improvements in new line of twin and triple roll crushers consist of deeper mounting

sills with less obstruction from cross members, deeper top frame, separately cast star gears and driving gears and cast steel hubs for roll shells. Twin roll crushers are available in sizes 54x24, 40x22, 30x18, 24x16. Two sizes of triple roll are available: 40x22 and 30x18. Booklet describing new machines is available from manufacturer.

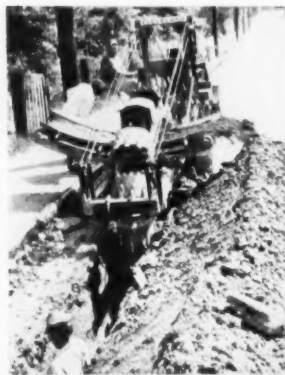
Rake Attachment—*York Modern Corp., Dept. F., Unadilla, N. Y.* Rake attachment is designed for use behind power or drawn grader, light tractor or truck. It screens and distributes windrow left by grader blade, shunting larger stones and other objectionable material to side of road. Attachment weighs 1,160 lbs., is 15'4" long, has 6'3" wheel tread and tongue extends 5'7" beyond main frame. Working width with rear section of rake extended is 9'4", with rear section retracted, 8'. Rake has 66 alloy

steel heat-treated teeth attached to high carbon spring steel heads. Tooth size is 5 16" x 1 1/4" x 28". There are 51 teeth on long head and 15 on short head. Frame is constructed of structural steel electrically welded. It has disc wheels with drop center rims and 6:00x16 4-ply pneumatic tires.



York rake attachment

INSURE MAXIMUM TRENCHING PERFORMANCE AT MINIMUM COST



Clevelands



PUT THEM ON YOUR LONG LINES
• SHORT LINES • HOUSE SERVICES
• DRAINAGE • IRRIGATION • CABLE
• CONDUIT • BUILDING FOUNDATIONS
AND YOUR TRENCHING JOBS WILL BE

On Time-Everytime

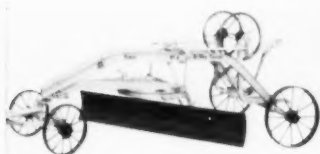
BECAUSE • CLEVELANDS, through a wide range of transmission-controlled speed combinations, always give you the fastest and best speed for the job conditions. • Their rugged all-welded unit-type construction cuts "down times" to a minimum. • Their specially designed crawlers assure perfect balance and that hair-line maneuverability so essential to top performance in rough terrain and in the tight places. • They are designed, engineered and manufactured to meet the severest conditions of soil, terrain and climate and deliver long-time continuous service at minimum cost.



THE CLEVELAND TRENCHER CO.

20100 ST. CLAIR AVE. • CLEVELAND 17, OHIO

Pull Grader—*Preco Inc., 6300 E. Slauson Ave., Los Angeles 22, No. 4* "Hi-Way Patrol" pull grader has 8' blade and wide range of adjustments. It has adjustable rear axle and tractor pole and may be pulled by small track or wheel-type tractor, truck or team of horses. Flat spoke or rubber-tired wheels are optional. Frame is of all-welded construction; gears are totally enclosed. Preco manufactures unit under license of Caterpillar Tractor Co. and distribution is through Caterpillar dealers.



Preco No. 4 "Hi-Way Patrol" grader.

Soil Stabilizing Machines—*Seaman Motors, Inc., Dept. I, 305 N. 25th St., Milwaukee 3.* Two new road-mixing plants are self-propelled "Pulvi-Mixer" and self-propelled "Trav-L-Plant." Features of machines are: heavy spill-over ahead of rotor to produce repeated re-mixing; all controls within easy reach of operator; unobstructed operator's view; easy maneuverability because of short turning radius. "Trav-L-Plant" carries pump, spray bar and tachometer for accurate application of bitumen or water immediately ahead of mixing rotor. Illustrated leaflet describing machines is available from manufacturer.

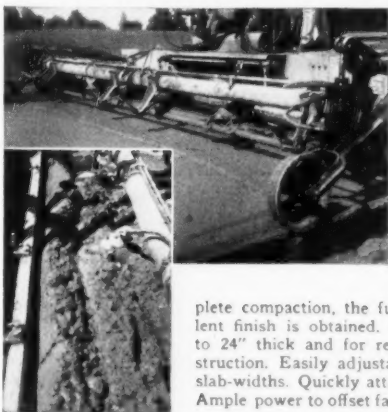
Roller—*Gabb Manufacturing Co., 16 Orchard St., East Hartford 8, Conn.* Water ballast power roller, "Motoroller," is offered in 3 models: standard, castor and tandem. All have same 24" x 24" power roll and main frame assembly and all accessories are interchangeable. Empty weight of tandem is 325 lbs., full weight is 860 lbs. It turns in 3' radius. Tandem roll is 24" x 16". Standard model has empty weight of 265 lbs., full weight of 610 lbs. It turns on its own axis, has 24" x 1" balance roll. Empty weight of castor model is 250 lbs., full weight, 595 lbs. It turns on its own axis. Castor roll is 6" x 6". Power is supplied by 1½ h.p. Briggs & Stratton engine with 6:1 reduction gears.

STEP UP YOUR PAVING PROFITS!



JACKSON SIDE FORM VIBRATOR

Eliminates manual vibrating of concrete at side forms. Saves the better part of two men's labor. Mounts on any modern finisher, Jackson Vibratory Paving Tube or spreader. Employs two or more vibratory units that are simultaneously lowered into or raised from the concrete by the finisher operator. Units operate close to forms or reinforcement without fouling — ride over any obstruction encountered. Will not penetrate into sub-base. Assures thorough compaction regardless of speed of finisher or spreader — no spots missed. Long-wearing, trouble-free.*



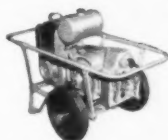
JACKSON VIBRATORY PAVING TUBE

Quickly makes plastic the stiff, drier concrete mixes which effect up to 10% cement savings. Concrete at forms or joints is, under most conditions, puddled perfectly, thus saving manual vibrating. Reduces spreading cost, steps up finisher progress. Complete compaction, the full width of the slab, and excellent finish is obtained. Perfectly adaptable to slabs 6" to 24" thick and for regular single or two-course construction. Easily adjustable in the field from 10' to 25' slab-widths. Quickly attachable to any standard finisher. Ample power to offset fast drying and setting conditions.*

JACKSON PORTABLE POWER PLANTS generate both single phase and 3-phase 115 volt, 60 cycle AC. Ideal for lights and power tools. Capacities: 1.25 to 5 KVA.

OTHER JACKSON VIBRATORY EQUIPMENT — perfect for every type of concrete placement.

FOR SALE or RENT at your Jackson distributor.* Get your **FREE** copy of the Jackson "Pocket Guide" showing complete line.



MANUFACTURED BY ELECTRIC TAMPER & EQUIPMENT CO. FOR
JACKSON VIBRATORS, INC., Ludington, Mich.

Pumps—Gorman-Rupp Co., Mansfield, Ohio. "Alta" line of close-coupled pedestal-mounted centrifugal pumps are designed to handle all liquids and solutions up to 2,000 viscosity. Pressure at stuffing box has been relieved by means of balance rings. Pumps operate quietly at higher suction lifts.

Tarpaulins—C. R. Daniels, Inc., 4900 Block Wetheredsville Rd., Baltimore 16. New line of winter tarpaulins, known as "Penguin" tarps, are offered in 13 stock sizes and 3 weights. They are manufactured only in brown, and include rust-proof gummets on triangular patches for extra strength. Seams are double sewn and raw edges

hemmed. Ropes are available at extra cost.

Hand Saw—Geometric Saw Co., Auburn, N. Y. Layout hand saw combines functions of saw, outside square, inside square, level, plumb, ruler, straight edge, protractor and surface cutter. Made of high quality carbon steel, blade is locked into position so it cannot become loose in handle. Top of blade is straight edge with handle and has deeply etched rule on both sides. Rounded point of saw blade is so constructed that operator can make surface incision. Handle is moulded from "Tenite II." Stainless steel protractor is recessed in top of handle, opening from 0° to 120° by 15° stages calibrated on handle. Spirit level vial and spirit plumb vial are shockproof-mounted into handle. Forward part of handle is set at 90° angle with top of blade, making outside square. End of handle is at right angles with top of blade, making inside square. Saw is made in 2 crosscut models, 8 or 10 teeth to inch and one rip saw model, 5 1/2 teeth to inch.

The Eighth of a Series in the interest of more efficient use of steel . . . a vital American resource



USE PROPER STEEL STRESSES AND SPECIFY LACLEDE MULTI-RIB REINFORCING BARS

Concrete reinforcing steel design stresses of 20000 psi (f_s) are based upon old type plain bars with 40000 psi maximum yield strength . . . A safety factor of 2 at the elastic limit.

Laclede Multi-Rib Reinforcing Bars designed for high anchorage* are produced in steel grades with more than 60000 psi yield strength. Retaining the elastic limit safety factor of 2, a design stress with Multi-Rib high strength reinforcing of 30000 psi is justified.

Sound engineering design dictates efficient use of materials . . . so why waste every third bar?

*IN EXCESS OF ASTM A305 REQUIREMENTS AND
THE LATEST A.C.I. RECOMMENDATIONS.



LACLEDE STEEL COMPANY

St. Louis, Mo.



Entrained Air Indicator—Cenco

Central Scientific Co.,
1700 Irving Park
Rd., Chicago 13.

"Cenco" entrained air indicator measures percentage of air entrained in fresh concrete mixtures by pressure method. Sample of concrete is

placed in calibrated bowl and struck off flush with flange. Cone-shaped cover is clamped to flange of bowl, pressure-tight seal being obtained with rubber gasket cemented to cover. Space above concrete is then filled with water to zero mark on glass tube attached to cover. Pressure is applied to concrete by pumping air into space over water column until pressure gage indicates pre-determined operating pressure. Air pressure, which is furnished by small hand pump, is indicated by precision gage graduated to 0.2 p.s.i. with range of 15 p.s.i. Contraction in volume of air in concrete with increase in pressure is indicated by lowering in level of water in glass tube. Scale on tube indicates gross air content in per cent.

For general contractors
and others in the construction
industry

CONTRACTORS' EQUIPMENT OWNERSHIP EXPENSE MANUAL

IN THE NEW 1949 REVISED EDITION



- Compiles data on the average costs of owning and operating various kinds of construction machinery and equipment.
- More than 1,400 items added not included in previous editions . . . a total of more than 2,400 items in all.
- Includes all important items of equipment as to type and size widely used throughout the contracting industry.
- New, easier-to-read and easier-to-use typographical format.
- Approved by the 30th Annual A. G. C. Convention.

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OF AMERICA, INC.**

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SINGLE COPIES: \$1.00 • PER DOZEN: \$10.00

PER HUNDRED: \$65.00

THE CONSTRUCTION FOUNDATION
1227 MUNSEY BLDG., WASHINGTON 1, D. C.

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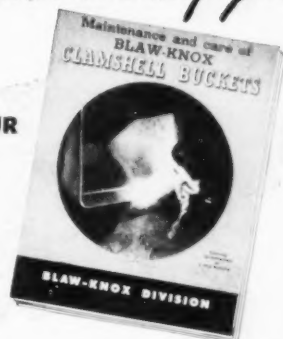
Zone _____

State _____

THE CONSTRUCTOR, FEBRUARY 1950

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**GET MORE
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BUCKET**



HERE are 36-pages full of practical information for owners and operators of Clamshell Buckets. Proper reeving, correct method of repairing worn lips and dozens of other suggestions are included for increasing yardage of material moved, cutting your costs and increasing your efficiency. Write for your free copy of Bulletin 2230-R.

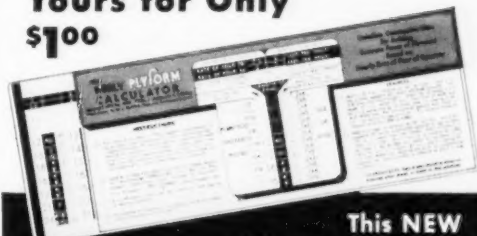
BLAW-KNOX DIVISION

of Blaw-Knox Company

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THE MOST COMPLETE RANGE OF SIZES AND TYPES

**Yours for Only
\$700**



**This NEW
Time-Saving Keely
PLYFORM CALCULATOR**

SAVE time designing and building forms of Plyform, the concrete form grade of Douglas fir plywood. Handy slide-rule calculator gives construction data, based on hourly rate of pour; included is booklet, "Design Assumptions for New Keely Calculator." Clip coupon—now!

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I enclose \$1.00 each to cover costs.

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☐ Also please send me, at no cost, copies of "Concrete Forms of Douglas Fir Plywood", and "Handling Plyform"

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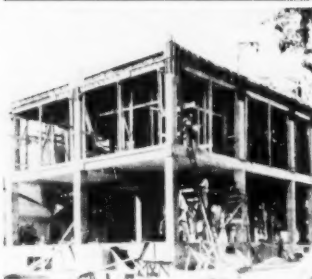
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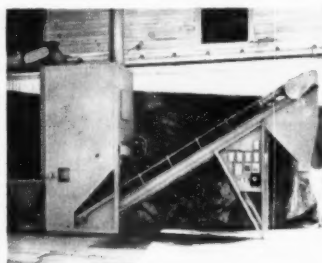
INCREASED PROFITS
WITH
REDUCED COSTS
BY USING
ECONOMY SIZE FORMS



ECONOMY FORMS CORP.

BRANCH OFFICES: Metuchen, N. J.; Fort Wayne, Ind.;
Minneapolis, Minn.; Decatur, Ga.; Dallas, Texas;
Denver, Colo.; Los Angeles, Cal.

Vermiculite Expanding Plant—Zonolite Co., Chicago. Small portable furnace makes possible processing of vermiculite at construction site. Savings in freight charges are made possible by processing at site, as vermiculite expands 15 times its volume when subjected to intense heat during processing. Furnace weighs 8,000 lbs., is skid-mounted and does not require special ore pits or foundations. It



measures 18'6" long, 11' high, 3'6" wide. Heated by single domestic-type oil burner, unit is composed of ore hopper with electric vibrating feeder, small elevator, furnace proper and incline drag conveyor which elevates material to small bagging hopper. Temperature of expanded material is reduced by built-in cooling jacket.

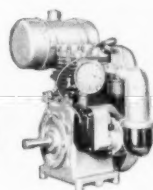
Sceerl supports—*Richmond Sceerl Anchor Co., 816 Liberty Ave., Brooklyn 8.* New items in complete line of sceerl supports include offset sceerl head designed to hold either 1" I.D. pipe or 1 1/4" x 1 1/4" x 3 16" T bar. This head is adjustable from above by means of speed wrench. Other new items are sceerl bolt for heavy sceerling with 2" x 2" x 1 1/4" bar, form bracket, adjustable base, sub-grade stake, sub-grade base, sub-grade chair, form bolt and curb bolt. Later two are used for supporting hanging forms for walls or curbs. Bulletin describing line is available from manufacturer.

WISCONSIN *Air-Cooled* ENGINES

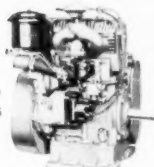
You get...

- Heavy-Duty, long term service . . .
- Weather-proof, automatic cooling . . .
- Foolproof lubrication . . .
- Quick, sure-fire starting in any climate, at any season . . .
- Full load power delivery on a continuous service basis if that's what the job calls for . . .
- Light weight and extreme compactness . . .
- Broad-range power adaptability . . .
- Top economy and operating efficiency . . .
- Ready availability of parts and service if and when needed . . .
- Popular and enthusiastic recognition and endorsement in all fields of engine power service . . .
- Your choice of power to fit the machine and the job in 4-cycle single cylinder, 2-cylinder and 4-cylinder engines, in a power range from 2 to 30 hp.

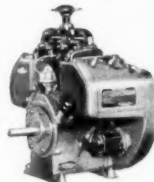
Let us supply you with full details, including engineering data applying to your specific power problems.



Single Cylinder,
3 to 9 hp.



Two Cylinder,
7 to 13 hp.



V-type 4-cylinder
15 to 30 hp

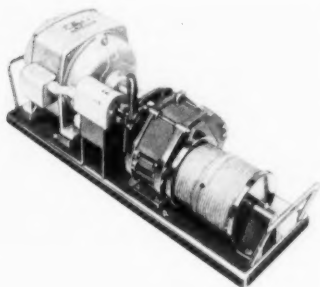


World's Largest Builders of Heavy-Duty Air-Cooled Engines

MILWAUKEE 14. WISCONSIN

NEW EQUIPMENT • MATERIALS

Portable Winch—St. Anthony Machine Products Co., 244 E. Franklin Ave., Minneapolis 6. "Stampeo Tugger" is portable electric winch powered to furnish line pull from 500 lbs. to 1,500 lbs. at speeds ranging from 55' to 220' a minute. Double reduction spur gears, of high-tensile steel, convert output of high-torque, repulsion-induction motor to constant speed and power ratio on drum of winch. Reducer is coupled to motor direct and is totally enclosed. Lever handle controls both mechanical brake and reversing switch on motor. "Tugger" is available in 6 models and capacities with either single or 3-phase dual voltage motors.



"Stampeo Tugger"

Bulldozer—Mead Specialties Co., Dept. MM 48, 4114 N. Knox Ave., Chicago 41. Small bulldozer, called "Mighty Mouse," weighs 800 lbs., is 36" wide at treads, 60" long without yoke and scoop, 77" long with yoke and scoop, 26" high at seat, and 29" high at hydraulic ram. Drawbar pull is 800 lbs. Speed range is from 1/2 m.p.h. to 6 m.p.h. Machine pivots on either track within 8' circle. Scoop is 36" wide, 14" deep, 12" high. Normal scoop load is approximately 3 1/2 cu. ft.



Mead "Mighty Mouse" bulldozer

Ramset Fastening System

Cost comparison sheet for *Special Contractors Inc.*

This form is provided for comparing costs on any job with RAMSET SYSTEMS as compared with present method and to estimate possible savings with RAMSET SYSTEMS. In estimating time with present system use actual time of workmen doing the work, including making forms, etc., covering job, and structure.

Remember: The more control in RAMSET, which will ultimately be low because the fastener must be set in one operation.

Materials used in present method should include plugs, set screws, nuts for RAMSET, should include both fastening charge and the RAMSET tool.

| | Estimated Present Method | Actual Ramset System |
|--|--------------------------|----------------------|
| NO. OF FASTENINGS | 7186 | |
| TIME REQUIRED | 2371.7 HOURS | 484.3 HOURS |
| COST AT \$ 2.00 PER HOUR | \$ 4,743.40 | \$ 968.60 |
| COST OF MATERIALS | 718.60 | 1,051.68 |
| TOTAL COST | \$ 5,462.00 | \$ 2,020.28 |
| COST SAVED WITH RAMSET SYSTEM | | \$ 3,441.72 |
| SAVED PER FASTENING WITH RAMSET SYSTEM | | 52 % |
| TIME SAVED WITH RAMSET SYSTEM | | 1,887.4 HOURS |
| | | 79.5 % |

\$2,841.00 SAVED WITH Ramset FASTENING SYSTEM

FOUR MINUTES per fastening (total time on job) with RAMSET SYSTEM instead of NINETEEN MINUTES with his old method saved this contractor \$2,841.00 on one steel fastening job. Instead of slow, laborious, costly drilling—just load the self-powered, light, RAMSET FASTENING TOOL. Then—READY! RAM! SET! Quick, easy, economical—and tight. Actual fastening time, less than one minute per fastener!

Compare your fastening costs into steel, concrete and other hard materials. See how much time and money you can save with the simple, lightning-fast RAMSET SYSTEM. With 65 sizes and types of drive pins and threaded studs, you can do almost any kind of construction fastening job.

Your local Ramset Specialist will help you cut costs and show you how to "RAMSET" your way into more profitable business. Write or wire us collect for name of nearest representative.

Ramset System

SAVES TIME . . . CUTS COST ON JOBS LIKE THESE:

Fastening—

- Wood sills to concrete foundations or walls.
- Wood nailing strips.
- Wire mesh for gunite.
- Metal or composition roofs or walls.
- Guard fences or scaffolds.
- Framework, brackets and supports to concrete or steel.

Stemco Corporation • Cleveland 16, Ohio

FASTEN FASTER, EASIER, CHEAPER WITH RAMSET



SLOANE QUANTITY SURVEYS

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All Classes of Construction

**We Maintain a Large Staff
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Reasonable Prefixed
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NEW LITERATURE

Truck Mixer—Chain Belt Co., 1625 W. Bruce St., Milwaukee 4. Bulletin 19-13 presents new "Rex" adjustable discharge "Moto-Mixer." Advantages of adjustable discharge are explained, job photos show mixer at work. Mounting dimensions, drawings and specifications are included.

Excavators—Koehring Co., 3026 W. Concordia Ave., Milwaukee 10. Specification charts give increased lift capacity ratings recently announced for 3 sizes of excavators. Maximum capacity of Model 304 has been established at 13.9 tons with crawler mounting and 25 tons on both rubber tire-mounted truck and cruiser cranes. Specifications show increase for crawler-mounted Model 605 to 36 tons and of Model 1005 to 79½ tons.

Paver—Koehring has issued new catalog on 34-E "Twinbatch" paver. Featured is discussion of relative production capacities of single drum and 2 compartment drum pavers. Engineering details are presented. Functions of "Batchmeter" and oscillating boom are illustrated and described. Photos show "Twinbatch" pavers operating on unusual projects.

Hard-Facing Alloys—Stoddy Co., Whittier, Calif. Revised edition of Stoddy Guidebook covers applications of hard facing alloys in heavy industry. Detailed information is given on choice and application of various hard facing metals used in heavy construction, mining, dredging, rock products plants, etc. Approximately 100 common uses for hard metals are described; data include types of metals recommended, method of application

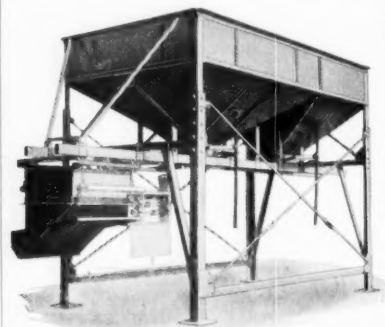
and approximate amount of alloy required for job.

Crane Blocks—American Hoist and Derrick Co., St. Paul 1, Minn. "Lo-head" crane block is presented in Catalog 300-16. Detailed photos and drawings show construction of block. Specifications are given.

Thermal Insulation—Infra Insulation, Inc., 10 Murray St., New York 7. New edition of *Simplified Physics of Thermal Insulation*, by Alexander Schwartz, president of Infra Insulation, discusses heat and vapor transfer; conduction and density; convection; radiation and emissivity; rejection, reflection and absorption; permeability vapor and vapor barriers; humidity; condensation and radiant heating. Mass fibrous insulation and reflective types of material are discussed and compared and uses suggested. Booklet is illustrated with photos, charts and diagrams. Infra "Chart of Thermal Insulation Values" has been brought up to date and contains latest data on K, C, R and U factors of insulations.

Lubrication—Lincoln Engineering Co., 5702-56 Natural Bridge Ave., St. Louis 20. Lubricating equipment catalog, No. 30, shows on-job power lubrication of construction machinery. Mobile lubrication departments are illustrated and described.

Compressors—Joy Manufacturing Co., Henry W. Oliver Bldg., Pittsburgh 22. Catalog presents "Unitair" compressors, contains pictures of all sizes and sectionalized drawings pointing out various features. Also included



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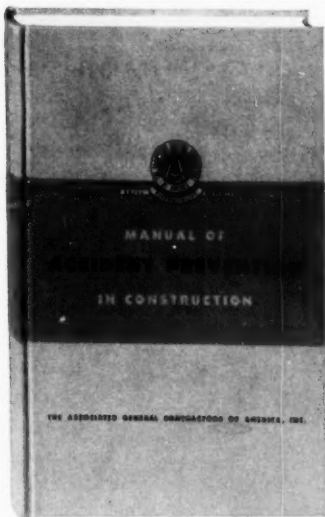
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NEW LITERATURE

is "Selector Chart" for choosing compressor to meet individual requirements.

Excavators—Marion Power Shovel Co., Marion, Ohio. Three Marion Ward-Leonard electric machines are presented in separate bulletins. Bulletin 393-A covers Type 131-M; 394-A, Type 4161; 399, Type 111-M. Features of shovels are discussed and operations for which they are recommended are given.

Steel Scaffolding—Patent Scaffolding Co., 38-21 12th St., Long Island City 1, N. Y. Bulletin PSS-14 presents "Trouble-Saver" sectional steel rolling scaffolds. It describes and illustrates variety of arrangements of prefabricated steel sections in use as movable scaffolds for repairing, painting, decorating, plastering. Typical installations are shown, together with methods for assembling sectional units to adapt scaffolding to space, height

and shape requirements of different jobs. Erection advantages and safety features are discussed.

Metal Walls—The Mills Co., 975 Wayside Road, Cleveland 10. Catalog 50 presents movable metal walls and describes their advantages. Features described include all-welded panel construction, special treatment of baked-on enamel finishes, provisions for lay-in wiring. Complete detailed construction drawings and specifications data are included. Accessories are fully treated.

Engines—Cummins Engine Co., Columbus, Ind. Specifications for automotive and industrial models of 2 supercharged 6-cylinder Cummins diesels are presented in 2 bulletins. Bulletin 5285 presents NHR-600, 275 h.p. engine, and Bulletin 5290 NHR-600, 300 h.p. engine. Five models are shown of each engine. Installation drawings, photos and charts on torque,

h.p. and fuel consumption are included, in addition to general specifications for standard equipment.

Architectural Metals—J. G. Braun Co., 609 S. Paulina St., Chicago 12. Catalog 49 (A.I.A. File No. 15) presents metal products in company's stock, gives weights and measures. Among items listed are handrails of bronze, steel and aluminum, aluminum shapes, baluster collars and flanges, railing castings, angles and channels, steel mouldings, tubing, iron balls and rivets, nails.

Lumber—West Coast Lumbermen's Assn., 1410 S.W. Morrison St., Portland 5, Ore. Revised membership directory, entitled *Where to Buy*, gives detailed information on sawmills, remanufacturing plants, timber fabricators, wood pipe and tank manufacturer and wood treating plants in Douglas fir region of Washington, Oregon and Northern California. Facilities and

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NEW LITERATURE

products manufactured by individual mills are given in detail, and complete addresses, sales offices and officers, production capacities, manufacturing and shipping facilities and percentage production of each species are included.

Heaters—*Hauck Manufacturing Co., 124-136 10th St., Brooklyn 15, Bulletin 1066* presents heaters and thawers for use on winter construction jobs. Presented are: one-man and heavy-duty thawing outfits, "fire guns," ground-thawing equipment, salamanders, water heaters, concrete heaters, melting furnaces, kettles and hopper car thawing tube equipment.

HD-5 Service Manual

A new 220-page service manual featuring Allis-Chalmers' HD-5 crawler has just been released by the company's Tractor Division. Instructions include a complete guide on proper operation, maintenance and repair of this new tractor.

The book contains 23 sections. Sections one through 19 feature a general description of the tractor, complete specifications and a detailed pictorial and written description of the various assemblies of the machine, as well as instructions for the proper adjustments and repairs when rebuilding these assemblies. Where special tools are required in making repairs, their application and use are illustrated in Section 20.

Sections 21 and 22 are devoted to general maintenance instructions and fits and tolerances, respectively. Section 23 contains trouble-shooting information and indicates tests which can be made to help determine more easily the cause of mechanical difficulties.

Copies of this new service manual can be obtained for \$3.00 each from any Allis-Chalmers industrial dealer, or the Allis-Chalmers Tractor Division Service Department, Box 512, Milwaukee 1, Wis.

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A rational method of construction for elevated express highways, heavy underpasses, underground garages, containers and ducts carrying liquids.

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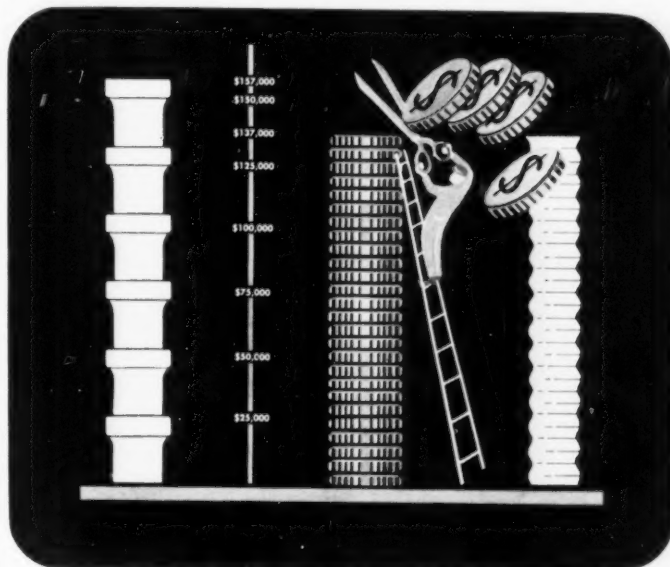
No wonder more and more experienced contractors are being awarded desirable contracts with bids based on Armco Corrugated Metal Pipe. Figured on an installed basis, this pipe saves money in many ways.

Although amply strong, Armco Pipe often weighs only one-tenth as much as more massive types. This means low handling and hauling costs. Job costs go down because unskilled labor quickly makes the installation. There is

no breakage, no curing, no delay.

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Bid low with adequate profit by figuring that next job with Armco Corrugated Metal Pipe. You will find it ideal for highway, railway, airport and municipal installations. Write for complete data. Armco Drainage & Metal Products, Inc., 2280 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation.



ARMCO DRAINAGE STRUCTURES



Robert F. DeLay has been named manager of advertising and sales promotion for HERMAN NELSON CORP.

William Kusz, formerly supervisor of industrial advertising at CATERPILLAR TRACTOR CO., has been named supervisor of cooperative advertising to succeed K. M. Emery who has resigned to join Hosler Advertising, Inc. Wendell J. Farisehon, formerly news editor, succeeds Mr. Kusz, and Jerry Cook, formerly news writer, succeeds Mr. Farisehon.

Clifford F. Hood, president of AMERICAN STEEL AND WIRE CO., U. S. Steel subsidiary, has been elected president of CARNEGIE-ILLINOIS STEEL CORP., also a U. S. Steel subsidiary. He succeeds Charles R. Cox, who resigned to become president of Kennecott Copper Corp. Harvey B. Jordan, vice president in charge of operations of American Steel and Wire, succeeds Mr. Hood as president. . . . James E. Lose, vice president in charge of

operations of Carnegie-Illinois, has been elected executive vice president, a newly created position. Stephen M. Jenks, manager of operations for the company's Chicago district, succeeds Mr. Lose. William C. Oberg has been appointed to a new position as general manager of operations of Carnegie-Illinois.

John S. Shaw, director of safety of HERCULES POWDER CO., retired January 1. For nearly 50 years, Mr. Shaw has devoted his efforts to standardizing chemical operating procedures and use of safety equipment.

Completion of a substantial portion of the modernization and expansion program of the administrative facilities at the general office of BETHLEHEM STEEL CO. is announced by John W. Harris Associates, builders, of New York. The program consisted of three contracts aggregating a total expenditure of approximately \$5,000,000 over the past eight years. Included in the

new construction is the recently dedicated Charles M. Schwab Memorial Library, established by Bethlehem to serve the entire steel industry.

CHESEBRO-WHITMAN CO., with offices and factories in New York and New Jersey, is currently observing the organization's 70th anniversary. Organized in 1879 to manufacture ladders, scaffolding and flagpoles, the company has become an important factor in the manufacture and distribution of off-the-ground safety equipment in the Metropolitan New York area.

K. W. Horsman has been appointed works manager of the Dunellen, N. J., works of WORTHINGTON PUMP AND MACHINERY CORP. He succeeds B. R. McBeth, who has resigned.

Kenneth F. Ode has been appointed division manager of the FINDLAY DIVISION of GAR WOOD INDUSTRIES. Mr. Ode comes to Gar Wood from Trackson Co.

With more grips than a wrestler AND NO HOLDS BARRED



A wrestler with exclusive right to use unbreakable holds would win every bout.

A similar advantage, responsible for its unequalled performance, is a feature of the Owen Grapple.

Its ingenious Patented principle of operation enables each tine, or prong, to dig in and grip independently of the other tines-to grasp several rocks of varying size or hold in its unbreakable grip stone of tremendous size and fantastic shapes that could not possibly be handled by grapples of conventional design.

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BUYERS' GUIDE

Manufacturers' addresses are listed on page 85

Asphalt Plants (Portable)

Iowa Mfg. Co.
White Mfg. Co.

Axles (Truck)

Eaton Mfg. Co., Axle Division

Backfillers

Bucyrus-Erie Co.
Cleveland Trencher Co.
Harnischfeger Corp.
Parsons Co.

Batchers

Blaw-Knox Division
Butler Bin Co.
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
C. S. Johnson Co.
Winslow Scale Co.

Bearings (Anti-Friction, Tapered Roller)

Timken Roller Bearing Co.

Bearings (Roller)

Hyatt Bearings Division,
General Motors Corp.
Timken Roller Bearing Co.

Bins

Blaw-Knox Division
Butler Bin Co.
Heltzel Steel Form & Iron Co.
Iowa Mfg. Co.
C. S. Johnson Co.
Universal Engineering Corp.
Winslow Scale Co.

Bits (Detachable Drill)

Ingersoll-Rand Co.

Blades (Grader, Maintainer, Snow Plow, Bulldozer, Scarifier)

Shunk Manufacturing Co.

Brackets (Scaffold)

Patent Scaffolding Co.

Bridges

American Bridge Co.

Bridges (Multi-Plate Pipe or Arch)

Armed Drainage & Metal Products

Buckets (Clamshell & Dragline)

Blaw-Knox Division
Bucyrus-Erie Co.
Harnischfeger Corp.
C. S. Johnson Co.
Owen Bucket Co.
Pettibone Mulliken Corp.
Wellman Engineering Co.

Buckets (Concrete)

Blaw-Knox Division
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
Jaeger Machine Co.
Owen Bucket Co.

Buildings (Steel)

Allied Structural Steel Cos.
American Bridge Co.
Armed Drainage & Metal Products
Clinton Bridge Works
Gage Structural Steel Co.
Macomber, Inc.
Midland Structural Steel Co.
Smooth Ceilings System
Truscon Steel Co.

Bulk Cement Plants

Blaw-Knox Division
Heltzel Steel Form & Iron Co.

Bulldozer Blades

Shunk Manufacturing Co.

Bulldozers

J. D. Adams Mfg. Co.
Baker Mfg. Co.
Bucyrus-Erie Co.

Cableways and Wire Rope

A. Leschen & Sons Rope Co.

Car Pullers

Clyde Iron Works
Sterling Machinery Corp.

Car Retainers

Pettibone Mulliken Corp.

Ceilings

Smooth Ceilings System

Cement

Lehigh Portland Cement Co.
Lone Star Cement Corp.
Medusa Portland Cement Co.
Universal Atlas Cement Co.

Cement (Air-Entraining)

Lehigh Portland Cement Co.
Lone Star Cement Corp.
Medusa Portland Cement Co.
Universal Atlas Cement Co.

Cement (High Early Strength)

Lehigh Portland Cement Co.
Lone Star Cement Corp.
Medusa Portland Cement Co.
Universal Atlas Cement Co.

Cement (Waterproofed)

Medusa Portland Cement Co.

Cement (White)

Medusa Portland Cement Co.
Trinity White, General Portland Cement Co.
Universal Atlas Cement Co.

Clamps (Hose)

Dixon Valve & Coupling Co.

Column Clamps

Symons Clamp & Mfg. Co.

Compressors

Allis-Chalmers Co.
Ingersoll-Rand Co.
Jaeger Machine Co.

Concrete Mixers, Pavers, Tampers

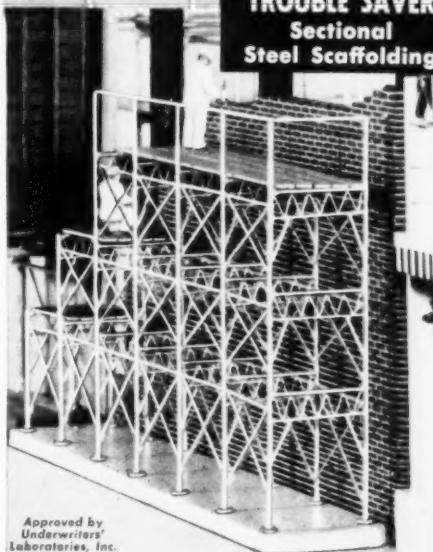
Chain Belt Co.
Construction Machinery Co.
Foote Co.
Jaeger Machine Co.
Knickerbocker Co.
Koehring Co.
Kwik-Mix Co.
T. L. Smith Co.
Worthington Pump & Machinery Corp.—Ransome Div.

Concrete Placing Equipment

Electric Tamper & Equipment Co.
Jaeger Machine Co.

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BUYERS' GUIDE

Concrete Vibrators
Electric Tamper & Equipment Co.
Ingersoll-Rand Co.
White Mfg. Co.

Conveying Machinery
Chain Belt Co.
Iowa Mfg. Co.
Link-Belt Co.
Universal Engineering Corp.

Couplings (Hose)
Dixon Valve & Coupling Co.

Cranes
Austin-Western Co.
Bucyrus-Erie Co.
Cleveland Trencher Co.
Clyde Iron Works
Harnischfeger Corp.
Koehring Co.
Link-Belt Speeder Corp.
Michigan Power Shovel Co.
Northwest Engineering Co.

Crushing Machinery
Allis-Chalmers Co.
Austin-Western Co.
Iowa Mfg. Co.
Universal Engineering Corp.

Culverts
Armco Drainage & Metal Products

Cutters (Abrasive)
Skilaw, Inc.

Cutters (Tile)
Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)
Macomber, Inc.

Derricks
Clyde Iron Works

Dippers
Pettibone Mulliken Corp.

Doors (Bi-Folding, Wood or Metal)
Kinneear Mfg. Co.

Doors (Hollow Bronze, Aluminum, Stainless Steel)
Newman Brothers, Inc.

Doors (Overhead Type, Wood or Metal)
Kinneear Mfg. Co.

Doors (Rolling Metal)
Kinneear Mfg. Co.

Doors (Steel)
Ceco Steel Products Corp.
Detroit Steel Products Co.
Truscon Steel Co.

Doors (Wood, Fireproof)
Fox Bros. Mfg. Co.

Dredging Machinery
Bucyrus-Erie Co.
Ellicott Machine Corp.
Harnischfeger Corp.
Northwest Engineering Co.
Sterling Machinery Corp.

Drilling Machinery (Pneumatic)
Ingersoll-Rand Co.

Drills (Blast Hole)
Bucyrus-Erie Co.
Ingersoll-Rand Co.

Drills (Masonry)
Ingersoll-Rand Co.
Skilaw, Inc.
Wodack Electric Tool Corp.

Dump Bodies
Anthony Co.

Elevators (Material)
Chain Belt Co.
Iowa Mfg. Co.
Link-Belt Co.
Sterling Machinery Corp.
Universal Engineering Corp.

Engines
Allis-Chalmers Tractor Div.
Caterpillar Tractor Co.
Continental Motors Corp.
International Harvester Co.
Murphy Diesel Co.
Wisconsin Motor Corp.

Engines (Air-Cooled)
Continental Motors Corp.
Wisconsin Motor Corp.

Engines (Diesel)
Detroit Diesel Engine Division
Harnischfeger Corp.
Ingersoll-Rand Co.
Murphy Diesel Co.

Entrances (Bronze, Aluminum, Stainless Steel)
Newman Brothers, Inc.

Excavating Machinery
J. D. Adams Mfg. Co.
Austin-Western Co.
Bucyrus-Erie Co.
Cleveland Trencher Co.
Harnischfeger Corp.
Koehring Co.
Link-Belt Speeder Corp.
Michigan Power Shovel Co.
Northwest Engineering Co.

Expansion Joints
Ladde Steel Co.

Fasteners (For Steel, Concrete)
Stemco Corp.

Finishing Machines (Bituminous)
Blaw-Knox Division
Foote Co.

Finishing Machines (Concrete)
Blaw-Knox Division

Floor Construction
Smooth Ceilings System

Flooring
Truscon Steel Co.

Form Accessories
Economy Forms Corp.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Williams Form Engineering Corp.

Forms (Concrete)
Carl Besch Co.
Blaw-Knox Division
Douglas Fir Plywood Assn.
Economy Forms Corp.
Heltzel Steel Form & Iron Co.
Joseph T. Ryerson & Son, Inc.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.

Gasoline Heaters
Behlen Manufacturing Co.
Herman Nelson Corp.

Generating Sets (Electric)
Caterpillar Tractor Co.
Murphy Diesel Co.

Grader Blades
Shunk Manufacturing Co.

Graders
J. D. Adams Mfg. Co.
Allis-Chalmers Tractor Div.
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
Koehring Co.

Grapplars (Rock)
Owen Bucket Co.

Gravel Plants (Portable)
Iowa Mfg. Co.

Grilles (Wrought and Cast Non-Ferrous)
Newman Brothers, Inc.

Grinders (Electric)
Wodack Electric Tool Corp.

Hammers (Electric)
Wodack Electric Tool Corp.

Heaters (Portable)
Behlen Manufacturing Co.
Herman Nelson Corp.

Hoists (Gas, Electric, Diesel & Steam)
Clyde Iron Works
Construction Machinery Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Jaeger Machine Co.
McKiernan-Terry Corp.
Sterling Machinery Corp.

Hoists (Hydraulic)
Anthony Co.

Hoists (Portable)
Ingersoll-Rand Co.

Insurance (Automobile)
Etna Casualty & Surety Co.
Central Surety & Ins. Corp.

Insurance (Casualty)
Etna Casualty & Surety Co.
Central Surety & Ins. Corp.

Insurance (Compensation)
Etna Casualty & Surety Co.
Central Surety & Ins. Corp.

Insurance (Liability)
Etna Casualty & Surety Co.
Central Surety & Ins. Corp.

Joists (Steel)
Ceco Steel Products Corp.
Macomber, Inc.

Kettles, Heating (Asphalt & Tar)
White Mfg. Co.

Letters (Cast and Formed Non-Ferrous Metal)
Newman Brothers, Inc.

Lighting Plants
Sterling Machinery Corp.

Loaders (Portable)
Link-Belt Co.

Longspans
Macomber, Inc.

Lubricants
Gulf Oil Corp.

Lumber (Fireproof)
Fox Bros. Mfg. Co.

Menders (Hose)
Dixon Valve & Coupling Co.
Ingersoll-Rand Co.

Millwork
Fox Bros. Mfg. Co.

Mixers (Truck)
Blaw-Knox Division
Chain Belt Co.
Jaeger Machine Co.



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A score of tools in one

You use the adaptable Do-all for many jobs. It drills concrete, brick or stone; 2800 hard blows per min. Takes 20 sizes steel drills (1/8" to 1 1/2") in 5 lengths up to 24". Also tools for chipping, routing, channeling, ealking, vibrating, etc. (The tach hammer, 1 min.) and Do-all is ready for metal drilling up to 3/8", wood drilling up to 3/4", grinding, buffing, etc.

Saves time and labor

You will speed your work with Do-all. Drills a 3/4" hole in ordinary concrete 1" deep in 15 seconds (or less). Easy to operate, only 15 lbs. Runs from lamp socket or generator.

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Wodack Electric Tool Corp.
4627 W. Huron St., Chicago 44, Ill.

BUYERS' GUIDE

Mixing Plants

Blaw-Knox Division
Butler Bin Co.
Chain Belt Co.
Jaeger Machine Co.
C. S. Johnson Co.

Moldboards

Shunk Manufacturing Co.

Mortar (Masonry)

Lehigh Portland Cement Co.

Nipples (Hose)

Dixon Valve & Coupling Co.

Partitions (Steel, Load-Bearing)

Macomber, Inc.

Paving Machinery

Chain Belt Co.
Foote Co.

Pile Drivers

Austin-Western Co.
Bucyrus-Erie Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Link-Belt Co.
McKiernan-Terry Corp.
Northwest Engineering Co.

Pile Shells

Armco Drainage & Metal Products

Piling (Corrugated Steel Sheet)

Armco Drainage & Metal Products
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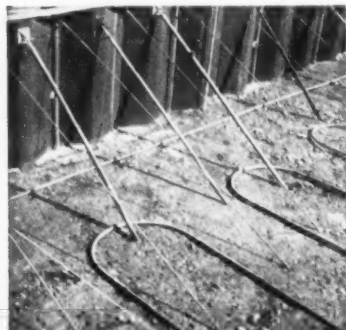
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